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FIFTY-FIFTH ANNUAL CONVENTION, AMERICAN INSTITUTE of ARCHITECTS, CHICAGO, ILLINOIS, JUNE 7, 8 and 9

LAST year, when in May the American Institute of Architects held its convention in Washington, delegates were compelled to walk from the hotel to the convention halls through rain-swept streets. And when they had reached the meeting place and sat, a comparatively small number, in a convention hall large enough to accommodate five times as many delegates, they were not permitted to soothe themselves with smokes. There were many discomforts, but the rain, the dreariness of surroundings or the lack of consolation that might come from nicotine, did not prevent the conduct of a most successful meeting, but laid the foundation for the present finely conducted gathering of the Institute.

Out along the shores of Lake Michigan, on the Hyde Park Boulevard, were the headquarters and convention hall of the fifty-fifth annual convention. The Chicago Beach Hotel is an unusually large,—or long,—hotel in a city noted for its vast hotel buildings. The succession of days that marked the convention were the "rarest" of rare June days. The convention hall, spacious enough to hold the delegates and those who also interestedly followed the three days of meetings, was filled with the reflected light from the waters of Lake Michigan. A cheerful place, where the program for each day was pleasantly carried forward. The ban on smoking was not on at this convention, and the ventilation was so good that delegates and visitors could all contentedly and enjoyably follow the various discussions.

The Illinois Chapter, the hosts on this occasion, with characteristic Western hospitality had thoughtfully seen to the comfort of the visiting delegates. All in all, this convention is one that from the very outset spelled success. The enormous length of the hotel corridors, long enough to have accommodated without undue crowding a whole brigade of infantry, seemed to the pessimistic ones who looked about them on the evening preceding the convention, to presage a small attendance. But when on the morning of June 7, President Kendall called the convention to order, what appeared to be but a small attendance was found, when gathered in the convention hall, to be a full and highly representative gathering. President Kendall's address will be found, in full, on another page of this issue.

To those who for a decade or more have attended conventions of the Institute, there were to be noted certain indications that bespoke the success of this meeting. The days when conventions were regarded as junkets for delegates have passed. Social functions that absorbed so much of the time and a large part of the interest of many delegates are conspicuous by their absence. Not that there was any lack of social relaxation but the relaxations were those that might logically be part of a gathering of architects and not merely opportunities for the display of sartorial elegance. In fact, the American Institute of Architects with its largely increased membership, its sound financial condition and the earnest and thoughtful attitude of its officers and the members of its committees, is assuredly entering upon a course that will make it more truly representative of the profession than it has been for many years.

When during the course of President Kendall's address, he announced the name of the donor of the $25,000 Educational Fund, a burst of applause interrupted him. The suggestion that this fund be named in honor of its donor, the Waid Educational Fund, was greeted with the liveliest satisfaction. Mr. Waid, in acknowledging these expressions of enthusiastic approval, said,—"I hope that this may be the beginning of what the Institute may hope to do in the future. So far as I am concerned, it is simply the expression of a hope that it will afford an opportunity to students of architecture that was denied to many of us."

Following the President's address there was presented the report of the Board of Directors. This voluminous document was referred to the usual committee. In substance, it is practically a resume of the various committees, amplifying, criticizing and recommending. At these conventions there arises in the mind of the thoughtful observer ever an attitude of respect for the work of the men who represent the Institute either on

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its Board of Directors or on its many faithful and hard working committees. These matters so carefully thought out and so decidedly set forth should not be allowed to sleep, but it would seem as if there should be installed some more strongly working machinery that would operate between the conventions.

Mr. Kimball, of Omaha, as president of the directors of the Institute press, presented the report of the *Journal of the American Institute of Architects*. During the course of his remarks he stated,—"Our money comes largely from advertising, our return to these advertisers lies in our increasing subscriptions."

AT this point of the morning's session of the first day, a pleasant feature was reached. It was the presentation of charters by President Kendall to the newly formed chapters. These new chapters are Central Illinois, Erie, (Pa.), St. Paul, (Minn.), Atlanta, (Ga.) and Southern Pennsylvania.

The report presented by Mr. Wm. B. Ittner, of St. Louis, as Chairman of a Special Committee on Survey of Institute Methods, was received with the closest attention and provoked an expression of sentiment that resulted in considerable discussion.

Referring to the matter of Institute membership, and in reply to a suggested question, "Where should the Institute be financially five years from now?" a plan was presented by Mr. Ittner, wherein Institute membership may reasonably be supposed to increase by a certain arithmetical progression until in 1927 the enrollment will have attained a total of 4,000 members. To simplify this progression towards a membership of 4,000 it is proposed in this report to provide a Junior class to which graduates of "recognized schools of architecture" would be eligible. The proposition so to amend the Constitution as to provide for this Junior membership was debated along the following lines.

"Any graduate in architecture of a school recognized by the Institute is eligible as a Junior upon submission of proof of his graduation, the Junior affiliation to expire automatically when the Junior has reached the age of 30 years. Privileges of Junior membership to be: 'To receive the *Journal* of the Institute as part of their annual dues; to receive copies of convention proceedings and such other Institute documents as the Board of Directors may direct; to be permitted to use after their names "Junior A. I. A" '." It was further provided that the annual dues of Juniors were to be $5, of which $2.50 should be for one year's subscription to the *Journal*.

A greater part of the discussion on this report centered on the meaning as to "schools approved by the Institute."

The report and resolution were finally approved, and referred to a committee to work out their details.

PROMPTLY on the adjournment of the morning session on Wednesday, the delegates and visitors to the convention, gathered in a large adjoining dining room for an informal luncheon. Five-minute addresses were made on subjects of interest to the profession.

The principal address at this luncheon was made by George W. Maher, F. A. I. A., Chairman of the Municipal Art, Zoning and Town Planning Committee of the Illinois Chapter of the American Institute of Architects. Mr. Maher reviewed interestingly the results achieved, and the need for disinterested service, particularly as the work is of an extremely technical character, of a group of trained men actively interested in the orderly growth and beautification of their communities or cities. Said Mr. Maher:

"The architect occupies a strategic position in such matters; his training and knowledge of planning, design and building construction establish a prerogative that is of value. The public is becoming acquainted with this fact and with the aspirations and ideals for which he and his organizations stand. Indeed, it is very evident that the time is not far distant when many vital problems affecting our cities' development will be submitted to the architectural profession for advice and approval before final decisions are made involving the spending of vast sums of public money."

Mr. Maher's description of the movement set afoot by the Illinois Chapter to save and perpetuate the Fine Arts Building of the World's Columbian Exposition was listened to with close attention.

"This magnificent structure is the last remaining memorial of a great art achievement. An achievement that undoubtedly stimulated America to a broader interest in art, architecture and city planning and beautification. It therefore possesses a distinct significance that is of value not only to Chicago but to the entire nation.

"The great international Exposition of 1893 also marked in a notable way America's first world-wide association with peoples and nations from abroad. Since then other great events of international significance have occurred, but it may properly be claimed that the first international attempt was successfully achieved at this great World's Columbian Exposition.

"The building was designed by Charles B. Atwood, an architect of eminence who was associated with Daniel H. Burnham, the directing architect in general of the World's Columbian Exposition. The main central pavilion was suggested by Bénard's 'Grand Prix de Rome' drawing, but Mr. Atwood refined and changed the detail. He designed the balance of the structure in accordance with this central motif and produced a

result that will live as long as art has any direct appeal to mankind.

"The building has been used since the World's Fair period to house a great collection of natural history and was temporarily known as the Field Museum. This great collection has been recently moved to its spacious new home in Grant Park.

"The exterior of the Fine Arts Building is in a state of disintegration due to the condition of the plaster veneer surfaces, which were not originally intended to be permanent. This has led to the general belief on the part of the public that the building was no longer safe and that due to its seemingly dilapidated condition it would soon be wrecked.

"The Illinois Chapter through its Municipal Art, Zoning and Town Planning Committee and the Illinois Society of Architects jointly compiled a comprehensive report and detailed estimates setting forth the amount of money necessary completely to rehabilitate the structure and make it ready for use. This estimate amounts to $1,640,000, and includes refinishing the exterior with waterproof cement, installing a heating plant and plumbing fixtures, reconstructing the roof skylights and in general rehabilitating the entire structure. It is unnecessary to state the many features involved in this undertaking, such as the priceless value of the site or grounds and the actual worth of the building as it stands today in Jackson Park; all of these items are completely covered in full. The report was formally submitted to the South Park Commissioners and also given wide publicity.

"The Fine Arts building would be especially appropriate for such a great school of industrial design. Its purity of style expressing a universality of art and architecture would be an inspiration to the student stimulating him to greater efforts and thereby encourage a creative art worthy of American genius.

"True progress must be founded on a knowledge of the great past and of those principles underlying all enduring art. It is, therefore, fitting that such a noteworthy building that embodies these necessary requisites, also historic significance and opportunity for service, should be of particular interest to the American Institute of Architects.

"It is their responsibility, their opportunity to lead the thought of America in matters of this nature.

"It is with pleasure, therefore, that I am able to state for the Illinois Chapter that the movement toward restoration of this famous building is well under way."

During the course of Mr. Maher's informal talk he was interrupted by many manifestations of approval.

The restoration of a building so architecturally good and one that emphasizes so well the renaissance of architecture in this country, it was believed, might very well claim the support of the Institute, and every member of the profession in this country.

The afternoon session of the first day was devoted largely to routine business. An early adjournment was had to permit of a visit of inspection by delegates of the buildings on the grounds of the Chicago University and, *en route,* an inspection of the Fine Arts Building, the features of whose restoration had been explained by Mr. Maher during luncheon.

The evening session was a special meeting devoted to general discussion of industrial relations. The outstanding feature was the address by Mr. T. E. Donneley, Chairman of the Executive Committee of the Citizens Committee to enforce the Landis Award.

SECOND DAY

ONE of the most enjoyable features of the convention of the Institute occurred on the morning of the second day's proceedings. It was the presentation of the Institute Gold Medal to C. Howard Walker. President Kendall in his short speech of presentation, stated, in part:

"Dr. Walker, as one of the very few members of our fraternity who have received the honors you have received, I wish to present on behalf of the committee and Institute to you, Dr. Walker, doctor of art, this token of our appreciation of your literature and skill and of your ability to put into a few words the substantial facts you wish to present, congratulating you also upon the success of the work which you have done in presenting the work to the colleges and universities of the country." (Prolonged applause).

In accepting the medal Dr. Walker held the delegates to the closest attention. He described interestingly his visit to different colleges in the middle West and before that to prep schools in New England.

Continuing, he stated, in part:

"The argument I used which seemed to get the best response was this: I stated I had been talking with a French officer who was speaking of our men abroad. He said that the American soldier trained well, died well and went beyond his objective but he had too many casualties. And I said, in our desire and our hunger to get ideas, especially in regard to art, we were going and had gone beyond our objective, because we did not properly train. I said to one college professor, 'Look down on that street and you will find the casualties on both sides as far as you can see.' (Laughter and applause).

"There was another point and I think this point is an extremely serious one, one that I pressed hard. It was, that there is no more than 10%, hardly that, in the colleges who have a post graduate and a graduate course in art, where the pupils have any knowledge of art or have anything to do

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with it, and of the other 90%, the men are going out, simply as college men. Suppose they *are* trained as cultured men and they become the head of large financial interests, the rest of them become chairmen of village improvement societies. These men are the men dealing with funds, they are the men whom you deal with in committees; they control, and the constant desire on our part is to satisfy them and at the same time we have to teach them. And they don't like to be taught; they entirely dislike it. They have not been educated in any way in art.

"A question came up in a certain resolution in regard to college examinations. I found throughout the West there weren't any college examinations—a high school certificate was taken in a number of the colleges, and that they 'minored' and 'majored.' It was the first time I came across that. I don't know yet what it means, but it does mean that some of the work on which some of the men were accepted was very 'minor' indeed.

"Now, how to organize? In what way? I think that a little conversation I had in St. George's School, the first one I went to, will perhaps explain the idea. A teacher of grammar came to me and said, 'How on earth will I be able to teach art in teaching grammar in syntax?' 'You have themes?' 'Yes!' 'And they have episodes or something?' 'Yes.' 'Give them a subject which relates to art.'

"Another came to me and said, 'Well, I am teaching English. I recognize in English literature the art, of course, in the history of it, but what else?' 'Have them illustrate whatever romance they write.' 'Illustrate, they can't draw!' I said that there was no man who could not draw; there is no child who cannot draw, and the reason that at seven or eight the child stops drawing is because the parent of some clever child will push him so that the poor little fellow whose parents cannot draw, shrugs his shoulders and says, 'Well, I'll go in for athletics.' If you let that child alone he will keep going, and I believe a person who cannot draw, who cannot record his observations without the means of an alphabet, is a cripple and he ought to be so considered.

"The suggestion I would make of it is this—that in some way with all this enthusiasm, with all this desire, with no entrance examinations in a lot of the colleges, we have plenty of work. You take a college that is dependable on 200 Holstein cattle and a $40,000 bull for part of its income and you are not going to get an advance examination of a high grade from that college. It is struggling and it is doing its best and it is doing mighty well, but get into the questions that are given the pupils and you will find you have to educate the teachers."

THE report of the Committee on Credentials presented on the opening of the second day, showed that there was a total attendance of 220, delegates, alternates and members.

The discussion on the development of the Octagon property in Washington consumed a large part of this morning's session. The necessity for some properly conceived plan was, in the opinion of those who took part in the debate, of first importance. The plan eventually to be carried out will undoubtedly be along the lines as set forth in the report of the Building Committee, printed on another page.

Afternoon Program, Second Day

The hospitality of the Illinois Chapter was most splendidly shown in the entertainment provided delegates on the afternoon of the second day of the convention.

A motor tour of the North Shore of Chicago that led through Lake Forest and back to Winnetka, where dinner was served at the Indian Hill Golf Club, was an experience that more than one hundred men and women will long remember. Through the courtesy of the owners, three of the fine estates along the North Shore were visited. Two of these houses were designed by Howard Shaw, the third by Charles A. Platt. The visitors were afforded the freest opportunity to inspect these stately houses, inside and out, and to wander through the formal gardens and on the broad terraces that overlooked Lake Michigan.

The dinner at the Golf Club, where the architects were welcomed by the Committee of the Illinois Chapter, marked the end of a perfect day. Western hospitality, always quoted for its fineness, was never more splendidly shown and, we believe, more thoroughly appreciated.

While Thursday, like all of the days of the convention, was unusually warm, it was perfectly bright and fair. The ride along the shores of Lake Michigan was through a splendidly developed suburban country, and the discomforts of a warm summer's day were tempered by a cooling and refreshing breeze. Particularly enjoyable was the ride home after dark, when the full moon silvered the landscape. This afternoon and evening were a fine convention experience. The Illinois Chapter seem to be able to control even the elements and the moods of nature when they set out to act as hosts.

Friday's Session (Last Day)

THE principal feature of this session was the report of the special conference on Better Advertising to Architects, coupled with the report of the Committee on Structural Service to Architects. The report on Better Advertising was accepted with little, if any, debate. The details of the Institute's action on a matter that by some seemed to be wide of its legitimate field, will be found on another page.

There was also a lengthy report by the Committee on Small Houses. In connection with this new activity on the part of the Institute, it may

be stated that the general belief seemed to be that there had not as yet been sufficient completed building operations carried forward to regard the matter as of in anything more than an experimental state.

The Luncheon held on Friday, as on Wednesday, in an adjoining dining room, was equally interesting.

Mr. George C. Nimmons, of Chicago, spoke on the Essentials for the Practice of Architecture. Mr. Nimmons strongly urged that architects become thoroughly familiar with the financial problems of their profession and thus take them from the hands of speculators who were not believed to work for the best interests of clients.

Mr. Thomas E. Tallmadge addressed the gathering on The Fine Arts as a Cultural Study. He was listened to with close interest.

When the convention re-convened at 2 o'clock for its last session, the report to the tellers, setting forth the results of the election, was called for.

The result announced was as follows:

For President, Wm. B. Faville, of San Francisco.

For First Vice-President, E. J. Russell, of St. Louis.

For Second Vice-President, Robert D. Kohn, of New York.

For Secretary, Wm. Stanley Parker, of Boston.

For Treasurer, D. Everett Waid, of New York.

Directors:

William Emerson, of Boston.

Benjamin W. Morris, of New York.

Wm. L. Steele, of Sioux City.

After the usual speeches and rising vote of thanks to the officers the convention adjourned.

Detail of Interior, Church of San Andrea, Mantua

From the original Photograph by Robert M. Blackall

THE PRESIDENT'S ADDRESS

Fifty-Fifth Annual Convention of the American Institute of Architects

IN again coming before you to present an account of our stewardship of your affairs during a year's activities, I am anxious to impress upon you the fact that the Officers of the Institute are responsible to you, its Chapters and Members, for what they do and to impress upon you again that what is done is carried out in the belief and intent of obeying your instructions.

May I briefly review the system under which the Institute is organized and its affairs managed? In 1913, at the convention in New Orleans, the Institute adopted a number of amendments, tending to establish a more democratic form of government.

The Convention, made up of duly appointed delegates from the Chapters, is the supreme authority.

Its decisions, on matters of general policy and professional principle, are final and are binding upon all its chapters.

As the Convention cannot sit continuously, its decrees are committed, between sessions, to the President and the Board of Directors and these in turn are assisted by the Executive Committee and by standing and special committees.

In this way many men are working at all times upon the problems of the profession.

These committees are reinforced and supplemented by the executives and committees of the several chapters, who are practically supreme in their several districts.

In order to secure a reasonable territorial representation we have, by a gentleman's agreement, provided that our directors shall be so elected that there shall be a representative of each region at all times upon the Board. There being nine directors, there are nine regions or districts, somewhat irregular in area and population, but intended to secure a proportional representation.

The Institute has fifty-one chapters distributed all over the country. These chapters represent widely varying conditions and customs. The problem of a central administration would be almost unsolvable were it required to legislate upon all questions arising in all these differing conditions and localities. Wisely, therefore, the local administration is confined to the chapter and the Executive seeks only a general supervision and guidance. Even this at times seems to some among us to be too paternal and restrictive.

This organization machinery on the one hand and the large field of chapter independence on the other hand, bound closely together by mutual interests, and by representative committee personnels, have made the Institute a powerful influence in national and local affairs. Our standards, our ideals, and our rulings are increasingly recognized and our judgment is deferred to.

With our increased membership we should greatly increase our influence. We are relatively a small group compared to our population, but with a real appreciation of our opportunities and of the real value of our service we may claim and expect to be accorded an influence most potent for good in all public affairs.

Every architect has reason to be proud of the Institute and ought to wear with as great a pride as that of any fraternal order the badge of membership. Whatever may be our shortcomings we have enough of achievement to justify our pride.

Believing that a great many of our members concern themselves so little with Institute affairs that the announcement of our activities and decisions comes with a shock to their nervous systems, if it comes at all, I am tempted to rehearse some of the things which have been done during the thirteen months since we last met in convention, in the hope that in this form they may have greater publicity than the more formal reports which will be placed before you by your officers and committees.

This matter of publicity, by which I mean advising at frequent intervals the entire membership of current happenings in which the Institute or its affairs have a part, has not hitherto received the attention it deserves and I am glad to state that an effort will soon be made to publish for your information a monthly summary of the happenings in the *Journal,* and to say that you will find in it an answer to a question sometimes asked as to "What is the Institute doing for me?"

Our campaign for membership has continued with gratifying additions to our numbers,—1032 new members in two years and we now have in round numbers 2500 members. An increasing desire for getting together is shown by the organization of new chapters, eleven in two years, in new territory in some instances, and in other cases in sections where it has been impossible for members to attend chapter meetings at headquarters on account of distance and expense of travel. These new agencies will, I believe, be new centers of activity for promoting fellowship, for upholding professional standards, and developing a comradeship not otherwise possible. We welcome these new bodies to our fellowship and wish for them all prosperity.

An embarrassment arising out of our increased membership is the increased size of our conventions. If the old standard of representation is to

prevail, a convention membership of 300 to 400 will result, making a somewhat unwieldy body, particularly so, if every one is to be permitted to voice his opinion on all topics presented for discussion.

Especially will this increase bear heavily upon the chapter treasuries, which bear a part at least of the expense of sending delegates to the conventions. The Directors have, therefore, with the assent of the chapters, limited the attendance to this present convention and will suggest a revision of the By-laws reducing for the future the number of delegates which shall be appointed, which will automatically reduce these expenses.

There has been an increasing recognition of the Institute by public bodies having to do with the building, artistic, and economic questions of the day. The Department of Commerce has been most generous in recognizing the value of the architect's advice and assistance and has given adequate recognition to members of our profession in forming committees and commissions for the study of economic problems.

Our members serve in these groups at great personal sacrifice, for the honor of the profession, and from the highest motives. We should accord them every recognition and approval.

The association formed two years ago to bring together all classes interested in building, ably directed and fostered by leading men of the profession, and called by them the "Congress of the Building Industry," has gone forward with its work. Local bodies have been formed in our larger cities and frequent conferences are held to study the problems of the industries involved and find a common ground of agreement and promote efficiency in building matters.

Other related services, such as the Small House Corporations, have carried forward their work. New divisions have been organized and are developing plans and service programs. It should not be forgotten that this is not a scheme for profit and is carefully safeguarded from ever being used in that way. It is to give to those who could not otherwise have it, an expert professional service at a cost impossible except by such a combination. It has not appealed to some of our members, who have felt it unwise and will so express themselves to you. This will be a matter for you to decide and I ask of you its thoughtful consideration.

The Board of Jurisdictional Awards has continued its work and "work" very adequately describes its task during the year. Its decisions in the past have not always commended themselves to some of you. Some have felt that they, in their happy situation of *Veni, vidi, vici,* could not give their adherence to these agreements. How glad I am that you are free from the very troubles that the Jurisdictional Board was constituted to avert. How considerate we wish you would be toward those of us who, still under the harrow, are glad of any ruling that will divert the particular prong which menaces us to another direction, or remove it altogether.

In so great a country as ours there are many varying conditions. Not all of us have a Landis, or a united citizen opinion supporting our efforts for fair play and equal opportunity and what is good in one case may not always prove the best in all others.

I beseech your tolerant, sympathetic patience and assistance.

The Institute is continuously asked to join in organizations for altruistic, co-operative, constructive effort and to many of these which promise real service for the country, we have given our moral and material support, asking many of our most active and efficient members to attend and give their service and, with regret I confess it, pay their own expenses. This should not be necessary and I hope the Directors will be able to find some way in the near future to meet these really necessary expenses. It is often hard for representatives of other organizations, which give considerable sums to finance these operations, to understand why we cannot do our part as well as they.

In November last the Institute called a meeting of leading advertisers, representing a large number of firms manufacturing or dealing in building materials and there met in Indianapolis seventy-five or more men active in the presentation of their goods and we discussed the waste in present day methods of advertising and presentation of products to the architect. Striking examples of waste and poorly directed methods were presented and a lively interest in improving the business was aroused. An organization was effected and an intensive study of methods and materials inaugurated. I anticipate worth while results and acknowledge with gratitude the splendid spirit in which our advances were met by the business men who were there.

Structural Service. Every month the *Journal* has a fund of valuable information published under this heading and the printed matter represents but a small part of the Committee's activities. Its members serve on various related boards and committees. It is working on building exits, safety codes for elevators, gas safety, school buildings, floor openings, electrical symbols, testing wood, paint, and other building materials, and is representing the Institute on several of the allied boards and commissions which are studying the problems of the Building Trades.

The *Journal* publishes these reports as a part of its service to the Institute and shares in the expenses of the Committee. It also publishes the minutes of Board and Executive meetings, and all such matters as can be placed before you in an open-to-the-public-column magazine.

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The *Journal* has completed its year with a balanced treasury; a most notable accomplishment when we consider the difficulties which all professional papers have encountered during the last twelve months. It will add shortly the page of current events in Institute life referred to elsewhere.

Closely connected, in thought at least, with structural service, is the Contract Committee. When the Committee on Contracts struggled to develop a standard form, better than the Uniform Contract, many said—it is useless, the public will not accept it. Like many another thing which can't be done, they went and did it. One hundred thousand or more copies of Agreement and General Conditions, of the Standard Documents, will be used this year and the demand is constantly increasing. Incidentally, the documents pay a profit into our treasury.

The subject of competitions has been, as always, a troublesome one and much time and anxious thought have been given to it. The most serious consideration was given to charges brought against an advisor and the standing committee, by a chapter, which grew out of a permission to waive "essential conditions" so-called, and resulted in great dissatisfaction and the simultaneous withdrawal of a number of men who were not satisfied with the verdict. The Directors and the Committee on Competitions gave most serious consideration to the limitation of the authority of the committee; but in view of the tendency of legislatures and other bodies to embody in statute or ordinance, conditions which are incompatible with what we call essential conditions, an insistence upon which would prevent public improvements of importance, or result in throwing them into incompetent hands, it seems as if the authority must be continued for the committee still to use its discretion.

The Directors were asked by the last convention to formulate rules for recognizing special ability and service by the conferring of Fellowship upon members of the Institute. At first this seemed an easy matter to adjust and suggestions for nominations were invited, to be acted upon by the Jury of Fellows as now constituted.

When, however, the Jury approached consideration of its task, it soon became convinced that while Fellowship, as a recognition of special service, or fitness, was desirable, the selection of candidates ought to be made by an independent committee, not engrossed with other duties, but free to give careful and deliberate consideration to all claims made and such investigation as might be necessary to establish thoroughly the worth of every nominee. An amendment to the By-laws to establish such a jury will be presented for your approval.

Some years ago a new form of badge indicating membership was adopted, but until the last convention it had never been directed to be made. The Board was directed to prepare it and place it on sale. It is to be had from the Executive Secretary at the Octagon and I hope whenever I meet you in future, even if your name or face be unknown to me, to be able to identify you as one of the fraternity and so to be on friendly terms at once without further formality.

During the year our Committee on Foreign Building Co-operation organized an exhibition of American Architecture at the Paris Salon and it was afterward sent to London at the request of the Royal Institute of British Architects and by special request was retained for some months for exhibition in other cities. The report of the Committee will cite the satisfaction and appreciation with which it was everywhere received.

The finances of the Institute will be appropriately reviewed in the report of our Treasurer. So quiet and unobtrusive a gentleman is he, that you scarcely realize how important a factor he is in our counsels and activities. Let me tell you, however, that we never, if possible, hold a meeting without him and that when he disapproves we hesitate twice ere we override his opinion.

A year ago a generous gift of $25,000 to the Institute was announced, the income to be applied to educational purposes. The gift was, in fact, $27,000 and the bonds in which it is invested have a market value at last reports of $28,000. It was the hope of the donor that this fund might be the nucleus of similar gifts which in time would prove a substantial and permanent endowment; the income of which would be a potent factor in the educational work of the Institute.

It is my privilege to recommend to you that this fund be now named, in honor of its donor, the Waid Educational Fund and so carried on all our records.

That his hope for additional gifts may soon become a certainty, I commend to your attention.

The central offices of the Institute are in the Octagon House. The ownership of this historic building, so intimately connected with the history of our country, was made possible by the generous gifts of architects who realized the desirability of a permanent home for the Institute.

The increasing difficulty of finding suitable meeting places for our convention has prompted the study of possible improvements in the Octagon property and the erection of such buildings thereon as shall provide a carrying income and a suitable place for our meetings and exhibitions. Studies for this development will be presented to the Convention and will deserve consideration.

There are many other activities, to which I might as properly call your attention. The work of our Education Committee, the Committees on Public Information, Contracts, Registration Laws, Historic Monuments, War Memorials, Community Planning, Fire Prevention, and

others, are all worthy of consideration, and I hope you will give them your attention in due course.

I should fail utterly did I attempt to put into words an adequate expression of the hearty co-operation, the gracious acceptance of committee assignments, and the unswerving loyalty with which you have met and aided my efforts to carry on the Presidential Office. It has been a revelation of good fellowship, real friendships, and co-operation, such as I did not dream I could evoke and I cannot express my appreciation. To Mr. Parker, who does everything he should, and many things I should, so well and so satisfactorily, that I would far rather he did them than I; to Mr. Kemper, whose unfailing vigilance and accurate mind keep us all posted as to our duties, whose enthusiasm for the Institute and loyalty make him so effective an Executive; to the Directors and the other officers, who have so thoughtfully assisted me, I owe a never to be paid debt of thanks. It must go on interest; I can never discharge it: and finally, to you all, who have given me two years of great responsibility, but years of privilege and opportunity, I make my grateful acknowledgments.

THE COMMITTEE REPORTS

AS in previous years, the reports presented by the various Committees are valuable documents. They represent the most patient research and a most unselfish contribution of valuable time. In fact, these reports are the foundation stones on which the Institute may erect the most effective structure.

Committee On Education

This Committee has presented the most voluminous and complete report of a series remarkable for research and practical suggestion.

The report states, in part:

Your Committee is pleased to be able to report that during the period thus reviewed the conditions surrounding architectural education in this country generally have materially improved. Architecture is not only better taught but the schools are better places in which to teach. In such schools as we have been able to visit we have found an atmosphere of sincere creative effort and honest, friendly emulation that must be helpful to all the students. To the best of our knowledge and belief, in all the schools the Faculties are sincerely working in a direction which is entirely in sympathy with the thought of this Committee.

Among all the different influences that have been at work to bring about the improvement which we have noted, it is difficult to select that one institution or individual to whom the greatest credit is due. Patently, the most potent factor has been the mutual confidence and resulting co-operation between all who have this important subject at heart.

We are definitely of the opinion that it is only the exceptional college graduate who at graduation is fit to practice architecture as a principal. We believe that practice in an office is as essential to the architect as hospital residence is to the doctor.

As to the proper length of the course in architecture, it seems to us that the type of candidate for a degree in architecture is so varied that it is impossible and probably unjust to measure the excellence and completeness of a school's curriculum by the length of residence required from the candidates for a degree. While we recognize the difficulty of making a course flexible in this matter of length of residence and hesitate to recommend a method, we believe that the system of values given for work accomplished, in partial use in several schools, is probably the best solution of the difficulty. Such a system enables men of superior gifts to advance more rapidly than their less fortunate fellows. At the same time it should meet the criticism that methods of education which are good for the average tend to hold back the more talented.

In reviewing the development of architectural education, your Committee has frequently had occasion to comment upon the splendid work of the Beaux-Arts Society, now known as the Beaux-Arts Institute of Design. Some years ago the Committee urged the creation of intercollegiate competitions, believing that, first, the solution of the same problem by a great number of students in different sections of the country was of interest, and second that emulation among the colleges stimulated to greater effort. While these intercollegiate competitions have proven difficult to bring about, today most of the schools use the programs of the Beaux-Arts Institute of Design more or less This results in placing the work of many of the colleges in competition with the work of the ateliers all over the country. We understand that the Faculties are generally agreed that a more general use of these programs is to be desired and we have been present at informal discussions of representatives of certain of these Faculties where a closer co-ordination of the schedule of the Beaux-Arts Institute of Design with the colleges has been urged. We now understand that steps have been taken looking towards the writing of programs by a joint commission of the Association and the Beaux-Arts Institute, and we sincerely hope that this may lead to a closer co-operation between the schools and the Beaux-Arts Institute of Design. It seems to us that such a development cannot fail to be helpful.

The American Institute of Architects should, we think, recognize the admirable work of the members of the Beaux-Arts Institute of Design. The great responsibility entailed upon the Chairman of the Committee on Education of that body in the conduct of this national work has perhaps never been fully understood. The unselfish devotion to the cause of education, of men like Lloyd Warren, Henry Hornbostle, Bosworth and many others, is worthy of our every admiration.

It will be recalled that at the last Convention there was considerable discussion as to the best disposition to be made of the income of the $25,000.00 fund which had been anonymously donated to the Institute during the previous year. No decision was reached in the course of the discussion. The matter was left in the hands of the Board for decision with the result that your Committee has been directed to expend the funds available in defraying the expenses of lectures on the Appreciation of Art in such institutions as the Committee might deem wise.

It would seem to your Committee that proper application of these funds under the Board's direction was to make arrangements for lectures to be given on the Appreciation of Art, so far as might be in out-lying institutions, that is,

in places where no opportunities for the study of the fine arts exist. We have, therefore, continued our very pleasant relations with the Committee of the Association of American Colleges, asking their advice as to where these lectures could be given to the best advantage.

Your Committee selected Mr. C. Howard Walker to deliver lectures, and he has spoken in seven different institutions of the Middle West and in two schools in New England.

Finally, we request

First: That the Convention discuss the creation of ten Institute graduate scholarships and authorize their creation by the Board in the amount of $300.00 apiece, subject to a satisfactory proposition being received during the coming year from the Association of Collegiate Schools of Architecture and this Committee, looking towards the recognition of one school as the premier graduate school.

Second: That the Convention authorize a subscription to the Beaux-Arts Institute of Design for the support of their admirable work in education.

Third: That they accept our recommendations creating the Henry Adams Fund. And

Finally: That they pass the resolution addressed to the College Entrance Board.

Committee On Registration Laws

The report of this Committee is a clear discussion of existing registration laws, and the necessity for codification and re-arrangement.

It presents valuable suggestions which, if accepted and carried to finality, would serve to correct what, in many instances, are unjust and discriminatory conditions. Some of the matters discussed are set forth in this report as follows:

Your Committee has no recommendations to make in relation to the Model Law as adopted by the Institute; this Model Law has and is serving as a good guide wherever laws are being prepared; it embodies the fundamental principles of all statutes establishing professions by law.

The states having registration laws and which have been reported to your Committee, are as follows:

Arizona	New York
California (N. & S. Dist.)	N. Carolina
Colorado	N. Dakota
Florida	Oregon
Georgia	Pennsylvania
Idaho	S. Carolina
Illinois	Tennessee
Louisiana	Virginia
Michigan	Washington
Minnesota	West Virginia
Montana	Wisconsin
New Jersey	

In all these states the laws establish certain minimum requirements for preliminary education. In some states such preliminary education is ascertained by the Boards appointed to examine the applicants for registration and in other states by an established department of education.

The preliminary education, as required, varies to a great extent in all the states; from "a good common school education" to a required course of two years in a college or university granting the degree of B. A. or B. S.; the course usually covering History, Mathemathics and Language; in some cases a foreign language.

The variation in the requirements relating to preliminary education has acted as a barrier to an interstate agreement on the approach to the technical examinations; it has led to a refusal of some states to accept a certificate from other states where the preliminary education is not the same by statute, notwithstanding high averages in technical examinations. Naturally the states which have established the higher degree of preliminary education are not willing to lower their standard and thus take a backward step.

Most of the states establish a minimum of technical training by recognizing certain Schools of Architecture as having competent courses. Uniformity of recognition of college courses in architecture would be a great step forward and can be accomplished by the Institute. The accepted technical training in schools is usually supplemented by a required period of experience in an architect's office; this period should be made uniform.

Registration laws with few exceptions, are the result of recent legislation, consequently each state has taken care of its "own" under waiver conditions extending for a limited period. While the particular state accepts its "own" it rarely accepts a similar class from another state; this puts the waiver architect in a bad position unless he is willing to go to school again and pass on such subjects as some Board may deem vital for his qualification.

The "ten years'" clause modifies this awkward situation and should be included in every statute.

Some states which require almost no preliminary education will not accept a certificate from another state requiring a college course in preliminary education, because the "college course state" insists that the "no education state" has not met the maximum. This seems to be a narrow policy but is a natural resentment.

The registration laws are not unique and the same interstate difficulties apply to all the professions but other professions are not so likely to have their work extending into other states.

Your Committee has not considered the question of joint Boards of architects and engineers; it does not seem to have anything to do with the tests provided under the laws and is purely a question of administration.

Committee On Small Houses

This report, presented by Edwin H. Brown, Chairman, interestingly relates the activities of this important Committee during the past thirteen months.

Mr. Brown states:

Because of the novelty of the Bureau idea, the lack of possible precedent, the necessity for the maintenance of all the ideals and standards of the American Institute of Architects it has been necessary to proceed with the most meticulous care, and many times with a slowness that has deterred many from taking the part in the Bureau work that they might otherwise have taken. The lack of funds, due to the general poverty of the profession, after years that have been, in general, extraordinarily lean, has also aided in retarding the progress of the Bureau. And yet, with all these things and others I am astonished and somewhat appalled at the tremendous strides made by the Bureau.

The report then sets down and answers a series of questions that have been asked with reference to the work of the Committee.

It is distinctly up to the profession of architecture, and particularly up to the American Institute of Architects, to carry this thing through. By their action of last year they stated that they could and would help in this way to solve the small house problem. This statement has been accepted by the Department of Commerce of the United States. Neither the American Institute of Architects nor the Bureau can afford to let this statement of faith in them be unfulfilled. They must and will make the success of the Bureau that it is bound to have.

All the officers of the Bureau are working, like the officers of the Institute without salary. It is a big job and they need the assistance and encouragement of every architect in the country. They have nothing to gain by it financially. For that reason they can honestly ask for your assistance and your money which will come from joining the Bureau. They see a wonderful thing for the profession to do and are trying to carry it out as best they can, with practically no financial means and little help at the present time.

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Committee On Preservation of Historic Monuments and Scenic Beauties

As in previous reports your Committee again recommends the formation of Chapter Committees to extend the influence of the Institute in this field of its activities. Such local committees especially in sections of the country rich in natural and architectural monuments offer the most direct means of influencing public opinion. Also through local organizations the support of such activities is more readily obtainable than through dependence on the budget of the Institute.

As an example of the value of local effort, the activities of the Chapters' Committees in New Orleans and Philadelphia have been referred to in previous reports. In this connection and with reference to a monument of national interest it may be noted that largely through the efforts and in accordance with the researches, surveys and plans prepared by the Chapter Committee, the City of Philadelphia has undertaken during the past year to restore the Old City Hall, one of the Independence Hall group and the original architectural counterpart of Congress Hall previously restored under the supervision of the Chapter Committee in 1914. The City Hall aside from its local historical associations and architectural interest, was the seat of the Supreme Court of the United States during the decade prior to 1800.

The City authorities in Philadelphia have also called upon the Chapter to make further researches and prepare plans for the restoration of Independence Hall, the original building of the group and the Chapter Committee has this work now in hand, and during the past year the committee has also made a survey and prepared plans for the restoration of the Bartram Mansion owned by the City of Philadelphia and preserved as a memorial of the first American botanist, John Bartram.

Committee On Public Information

The report of this Committee is practically a discussion of the brochure recently issued to Chapters. This document provides material for at least one year's work of public information through newspapers local to the various chapters. As far as it goes, the report outlines a valuable proposed effort. There may be, however, an honest difference of opinion as to just what is the most valuable "public information" as relating to the practice of architecture.

The report states:

Your Public Information Committee believes that the issuance of this document is a definite accomplishment and: That at least for one year, until the time of the Fifty-sixth Convention, no Chapter can say that it has not been supplied with a complete public information program and a large part of the material with which to carry it on. The National Committee cannot go into the territory of any Chapter and start a public information program. It would not do so if it had unlimited funds. The contact between the Public and the Public Press on one hand, and the architectural profession on the other, must be established by those in the locality concerned and not by an outside agency. It is apparent from the experience of the past 60 years that the Public, and the Public Press are not frequently coming to the architect seeking news and information of mutual interest. So, if the architect desires such mutuality he must take the initiative.

Educating the public as to the functions of architects, the important, even commanding position they hold in the second largest industry in this country, is, of course, desirable. But it would seem that some provision should be made and a dignified form of expression agreed on to communicate to the editors and publishers of daily papers and, unfortunately, some technical publications, the exact facts that will correct the many misleading statements that are constantly appearing. The Sub-Committees in the various chapters would provide a valuable service should they secure a correction of misleading statements in the publications where they originated.

Committee On Structural Service

This report is the most voluminous of all the many presented at the convention. The Committee's activities, as conducted in the past, were to gather, co-ordinate and pass on to Institute members all the valuable data that might be available as to structural material. To quote the report, "the work of the Committee on Structural Service, broadly speaking, is devoted to the development of an adequate structural technique." A most admirable thing to accomplish and when competently carried forward undoubtedly of great value to the members of the Institute this Committee has been formed to serve.

Attached to this report is an appendix with reference to a joint conference on Better Advertising to Architects.

The action of the convention on this report and appendix will be found in the report of the convention's proceedings.

Building Committee

In the Octagon property at Washington the Institute possesses a house whose architecture and traditions fulfill the highest ideals. It has always been the aim of the Institute to treat this property with the veneration and respect to which it is entitled. Two schemes of restoration have been considered by the Committee.

The first, a restoration to its original probable condition as a one-time private residence of the period of A. D. 1800. Such a scheme, states the report, would leave the Institute rather remotely identified with the Octagon House; would be of doubtful benefit to the Institute or to the public; and quite surely would burden the Institute financially beyond any practicable limits.

Second, the Committee considered the point of view which contemplates restoring the Octagon House and grounds to their supposed original condition and equipping the first and part of the second stories with reproductions of the choicest furniture of the period, including here and there, when available, an historic original piece. The House would be a residence museum standing before the public as an example of the best taste in furniture and decoration dating back to Colonial days. At the same time the House would be the home of the Institute and headquarters for architects visiting the Capitol City. The drawing room would be available for formal receptions and for meetings of the Boards of Directors. A portion of the second story would not be profaned but

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used as an office for Institute activities, and every visiting member of the profession would feel that his organization had a close association with a beautiful home of the early days of the nation, a home which sheltered the President when the White House was burned, and which was the scene of the ratification of the Treaty of Ghent. This second idea includes also erecting a convention hall and architectural exhibition and committee rooms. The new construction should be less in height and designed to form a harmonious setting and background for the Octagon House.

Community Planning

The Committee, in its report, states that leadership awaits the architect in the vast field of city planning. The report states:

> In spite of the need of the comprehensive planning for our cities, planning where undertaken at all in America is generally piece-meal. Zoning plans, street plans and recreation plans are made and frequently carried into effect. But the result is a desultory mosaic lacking the saving grace of co-ordination. It is a method, which over a space of time, spells waste. The neglect of the proper conception of the needs of the community as a whole is largely due to the indifference of the architect himself. Among all the professions he alone is trained as a planner, but he has permitted the activities in this field to fall into the hands of those who are chiefly interested in special phases of the problem. Leadership awaits the architect in the vast field of city planning only when he supplements his fundamental qualifications by a very thorough understanding of political and social science and the relation of the inanimate physical city to the human factor that gave it the breath of life.
>
> Communities, large and small, are now growing dimly conscious of the chaos into which individual interests have plunged them. They must and will insist on the collective planning and control of their future growth; such is the only law of their own self-preservation. The immediate future will demand a type of architectural leadership far eclipsing the services now sold to individual clients. The field of the architect and his outlook must be brilliantly enlarged.

Treasurer's Report

The report of the Treasurer, D. Everett Waid, is one that should afford Institute members much satisfaction. It shows that the finances of the Institute are today in most excellent shape.

It is interesting to learn from this admirably prepared document that the Institute membership has more than doubled during the past ten years, having increased from 1096 members in 1911 to 2211 at the close of 1921.

The actual expenditures for 1921 were approximately $43,500. The budget for 1922 contemplates an outlay of $53,500. The Institute's appropriation for structural service has rapidly increased during the past three years. It was $203.63 in 1919, $572.50 in 1920, while in 1921, $2,750 was expended. The appropriation for this service for 1922 has been increased to $3,500.

The Institute's appropriation for the *Journal* has increased from $1,500 in 1915 to $6,000 for the current year. The report states that those figures include $2.50 each for sending the *Journal* to every member, beginning in the year 1921, but does not include some $50,000 of working capital covered by an issue of bonds to individual members of the Institute.

Villa della Rosa
Battaglia, Italy

From the Photograph by
Robert M. Blackall

·EDITORIAL·COMMENT·

A LONG WHILE AGO, there was written a delightful book, for both old and young, called "Tom Cringle's Log." It related the cruising adventures in a small schooner of three wealthy gentlemen among the islands of the Carribean. One of these, a *gourmet,* could only recall the aspect of any place he had visited when reminded of what he there had to eat or drink.

The blasé attendant at Institute conventions sometimes finds his only novelty in referring to those social gatherings that are the result of the fine activities of the entertaining chapters. He finds, as he has learned to expect to find, that there is the same earnest endeavor throughout all the various sessions to debate the problems of the profession in the most serious, thoughtful and conscientious manner. He feels safe in leaving to those who have these matters in hand all the vital elements but he will not forego the, to him, solemn duty of participation in these discussions, if, even in the end, they finish exactly where they have left off.

Having thus taken upon himself for a brief period the responsibilities which his high position as a delegate confers, he feels he has earned the right to relaxation and he joyfully accepts the fine program presented.

At San Francisco, before the adoption of a certain much discussed amendment to our Constitution, delegates were entertained in many ways, the recollection of which must have stirred up happy memories during the torrid heat of the convention at Chicago just brought to a successful conclusion. At St. Paul, there was much to see in either of the Twin Cities or the terrain that divides them; at New Orleans, the French town, and trips to old plantations, while at Nashville the Barbecue at the Hermitage will always be remembered, particularly by those who were so fortunate as to receive that splendid Southern hospitality, particularly as to the little tent wherein a fortune teller read the palms of the delegates and stimulated with the fires of a renewed ambition.

Reference to those milestones in the history of the Institute conventions is not as frivolous as may seem. These gatherings have served to keep alive and foster a fine fraternal spirit that does not have its birth and death during convention days, but survives and creates a feeling as brotherly as the most highly developed fraternal society.

As to the general results of this convention, there can be little added to the detailed reports that appear in this issue. It was a good, hard-working and constructive meeting. In fact it may be said, without indulging in the over-enthusiasm that generally attends the description of a last convention, that it got things done and that the things it did were the big constructive things that count.

The American Institute of Architects is today more representative of its profession than it has ever been of late years. That the profession shares this confidence is shown by the steadily increasing membership.

Much of the visionary has been eliminated. Not all, for enough of that is left, as it should be, to show that architects are artists, but the Institute begins to realize that the world moves, and that to be a good artist a man must be level-headed. He must have his feet on the ground and if he has, we may not censure him if occasionally he shoves his head through the clouds.

* * *

WHEN A PIECE of machinery functions well, we admire the accuracy of its parts, but we often fail to learn whose master mind created it. Just exactly in the same way as does the average newspaper reporter. He dilates on the beauty of a building, he gives much space to "the prominent citizens" who own it, and he even gives the names of the ladies who pour the tea. But he forgets all about the architect.

Conventions of the Institute are the smoothest working of functions. Everything happens on time, everyone's questions, reasonable or unreasonable, get a prompt and intelligent answer. The convention opens, runs its course and dissolves. But for days before and days after, a certain quiet-spoken, efficient young man is competently doing the work he seems to be born to do. This, as most of us know, is E. C. Kemper, the Executive Secretary of the Institute,—the man every one leans on from the President down.

Mr. Kemper richly deserves any words of commendation we may set down here. Boards may come and Boards may go, Presidents are elected and pass, but Kemper with no thought of persons serves the Institute with all he has. It is so easy to censure, easier to ignore. It seems that these few words are little enough to offer in appreciation of the work of so competent a man.

* * *

OF COURSE, W. Stanley Parker and D. Everett Waid were nominated and elected with a unanimous vote to the respective offices they have for the past few years filled. Both of these men, absorbed with all the many cares of private practice, have yet unselfishly given a service the high quality of which is above computation. They have and hold the respect and confidence of the entire profession.

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Mr. W. B. Faville, the newly elected President, logically reaches his high position from the first Vice-Presidency.

The Presidency is now transferred from our Eastern seaboard to the shores of the Pacific. This change of location of the Presidency serves to make the Institute a body representative of the entire country,—a real American Institute of Architects. Mr. Faville will, of course, expect and he will, of course, receive the finest co-operation of the profession and, may we add, also that of the architectural press all over the country.

* * *

COINCIDENT WITH THE closing of the convention of the American Institute of Architects, was the announcement of the Chicago *Tribune*, that it would offer $100,000 in prizes for designs for a proposed new building to be erected on North Michigan Avenue.

The further announcement that this important competition would be governed by the rules as set forth by the Committee on Competitions of the Institute and that the Jury of Award would have for its chairman the president of the Illinois Chapter, was, quite naturally, received with enthusiasm by the delegates to the convention. No architectural event of recent years will have greater importance or wider significance than this competition, which establishes a record in the amount it offers to secure the best possible design.

In deciding to hold this competition under the rules of the Institute, and practically under its supervision, the publishers of a great daily newspaper have shown fine judgment, and given a pledge to the world at large of their intention to surround every element of this great undertaking with the best possible architectural safeguards.

To the officers and members of the Institute, this mark of confidence will undoubtedly bring a sense of deep satisfaction.

At the very outset a result is assured, that will secure the erection in Chicago of a building that will be a fine adornment in a city that is so earnestly striving to achieve the very highest ideals of monumental beauty. The site of the proposed structure affords unusual opportunities for the placing of a monumental building, commanding long vistas. The enthusiastic approval of the citizens of Chicago of the *Tribune's* great project shows a fine civic spirit.

The details of this competition will be found on page 543 of this issue.

WAR SCENES IN WOODEN SHIPYARDS

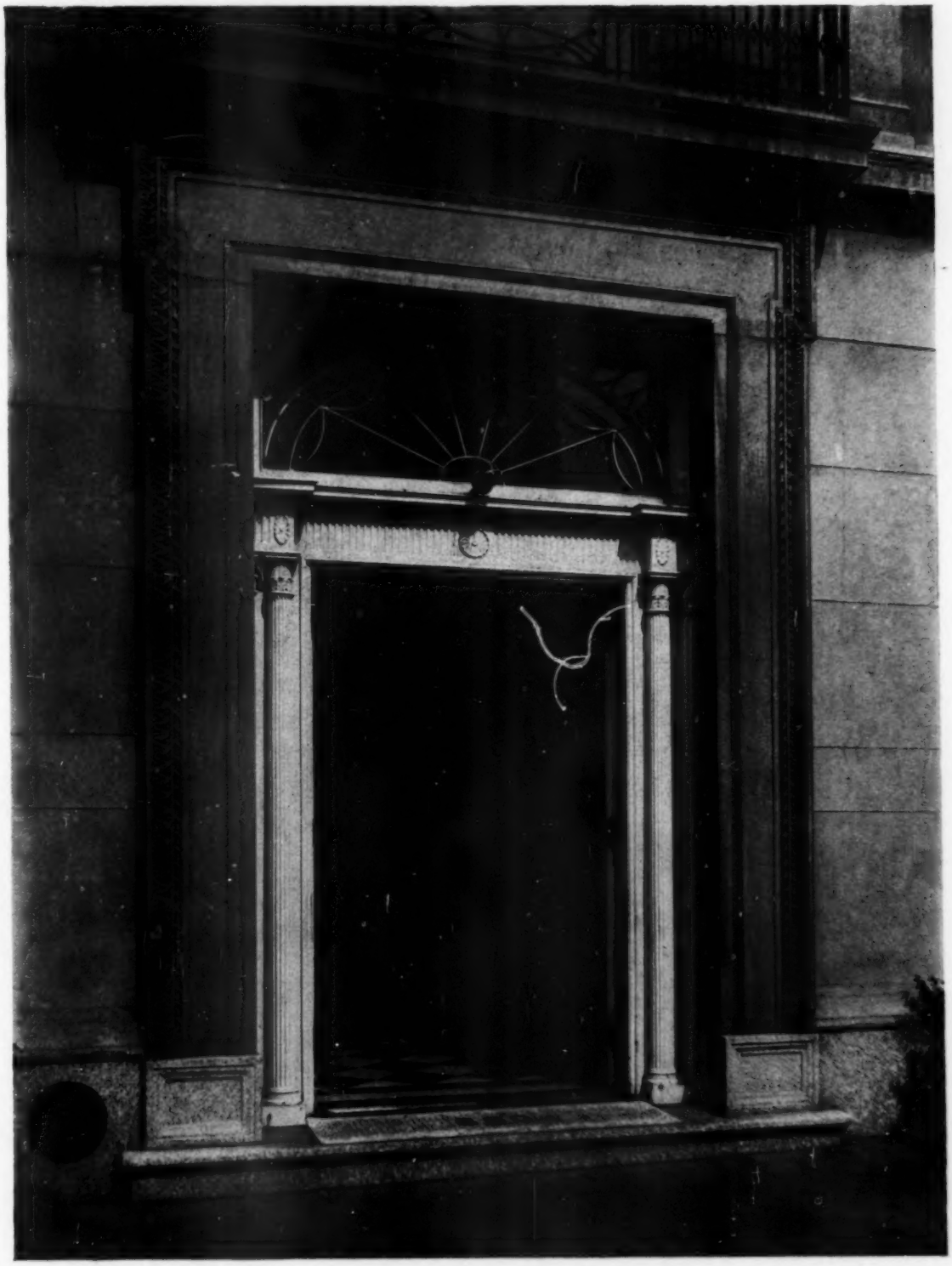
(From the original aquatint by Frederick K. Detwiller)

APARTMENT HOUSE, NO. 630 PARK AVENUE, NEW YORK

J. E. R. CARPENTER, ARCHITECT

(See typical floor plan shown elsewhere in this issue)

XUM



DETAIL OF PRINCIPAL ENTRANCE

APARTMENT HOUSE, NO. 630 PARK AVENUE, NEW YORK

J. E. R. CARPENTER, ARCHITECT

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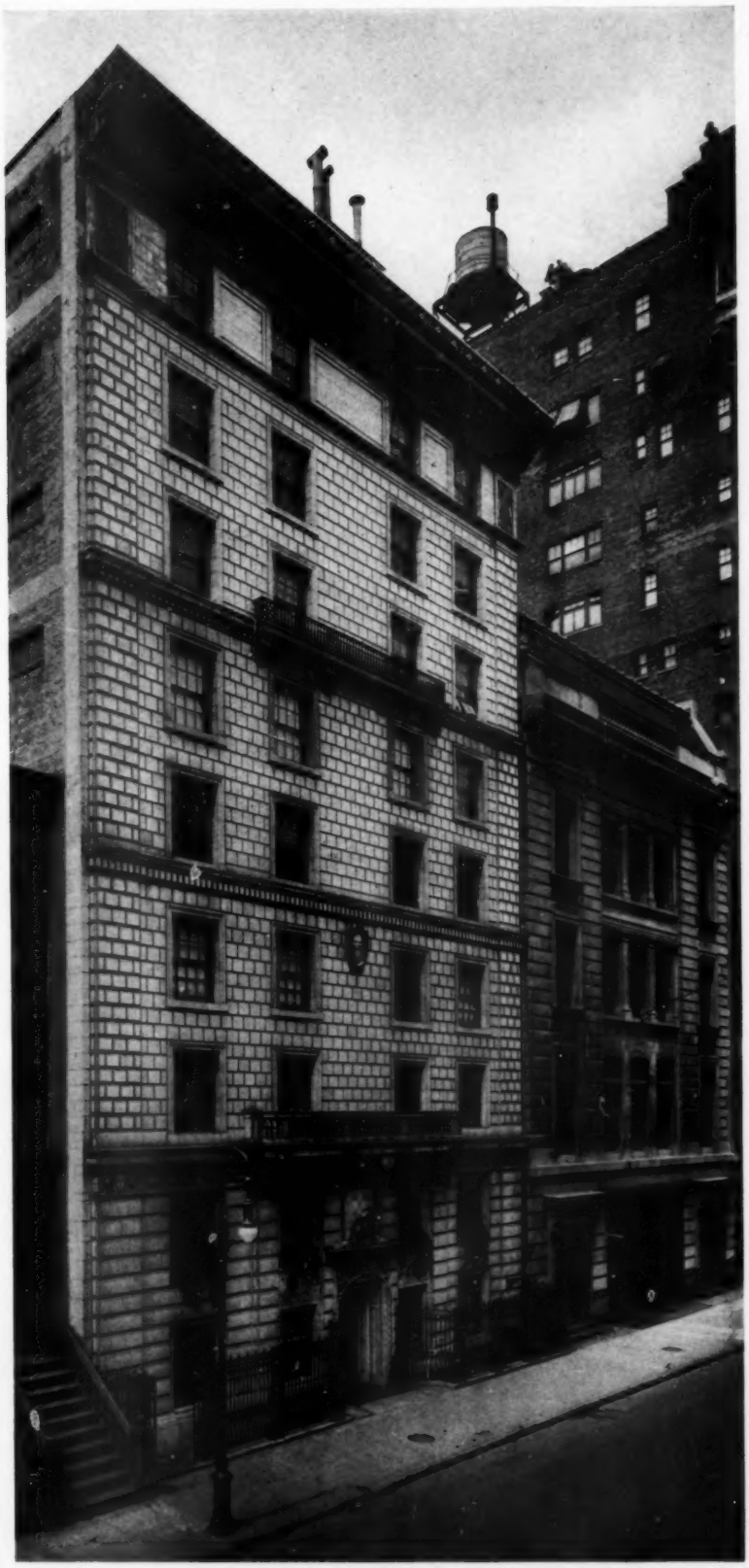

APARTMENT HOUSE, NO. 116 EAST 58TH STREET, NEW YORK

J. E. R. CARPENTER, ARCHITECT

(See typical floor plan shown elsewhere in this issue)

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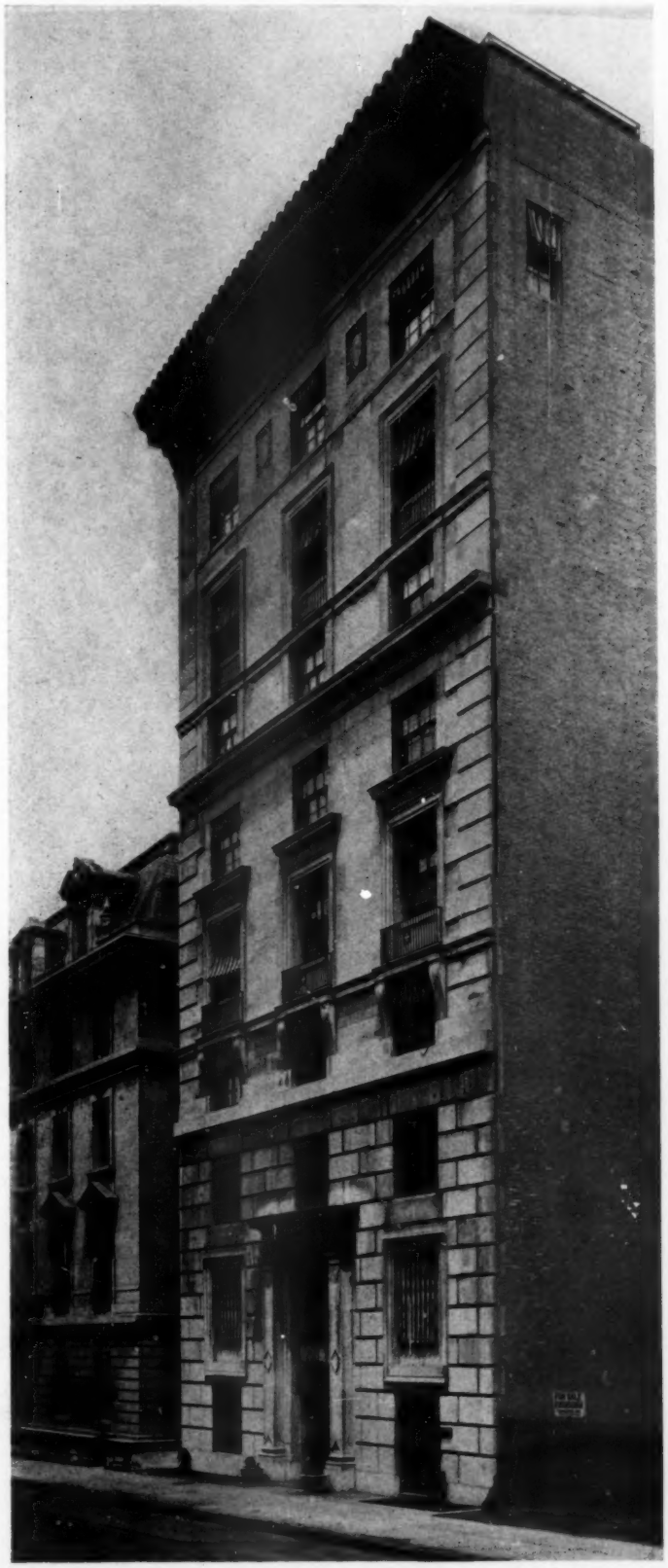


APARTMENT HOUSE, NO. 3 EAST 85TH STREET, NEW YORK

J. E. R. CARPENTER, ARCHITECT

(See typical floor plan shown elsewhere in this issue)

XUM

APARTMENT HOUSE, NO. 907 FIFTH AVENUE, NEW YORK

J. E. R. CARPENTER, ARCHITECT

(See floor plans shown elsewhere in this issue)

XUM

DETAIL OF PRINCIPAL ENTRANCE

APARTMENT HOUSE, NO. 907 FIFTH AVENUE, NEW YORK

J. E. R. CARPENTER, ARCHITECT

XUM

GARDEN WALL

HOUSE OF MRS. LEOPOLD CAHN, HARTSDALE, N. Y.

ALFRED HOPKINS, ARCHITECT

(See floor plans shown elsewhere in this issue)

XUM

VOL. CXXI, NO. 2396 JUNE 21, 1922

HOUSE OF MRS. LEOPOLD CAHN, HARTSDALE, N. Y.

ALFRED HOPKINS, ARCHITECT

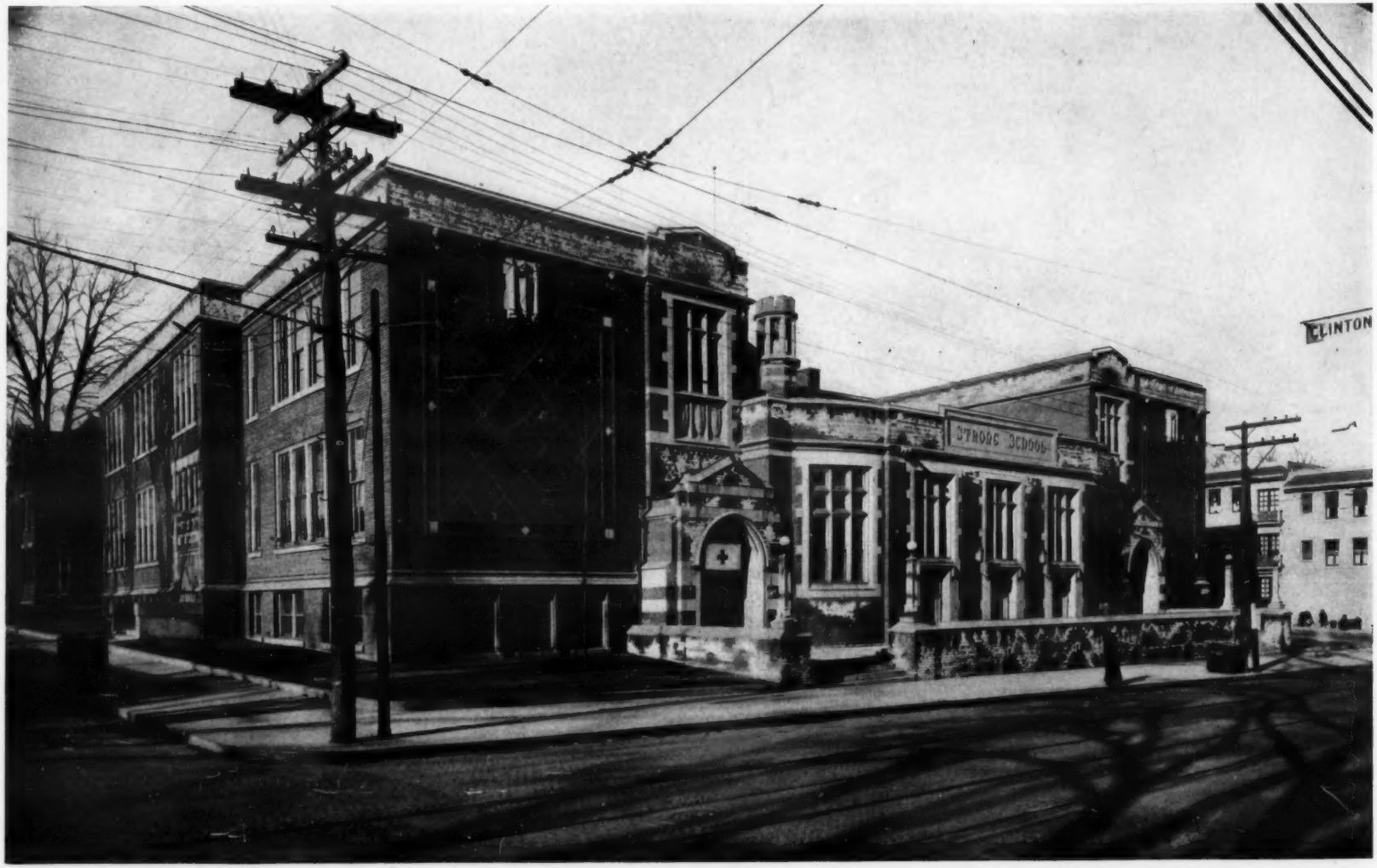
VOL. CXXI, NO. 2396

JUNE 21, 1922

ST. LAWRENCE SCHOOL, WEST HAVEN, CONN.

BROWN & VON BEREN, ARCHITECTS

(See floor plans shown elsewhere in this issue)



STRONG SCHOOL, NEW HAVEN, CONN.

BROWN & VON BEREN, ARCHITECTS

(See floor plans shown elsewhere in this issue)

A HOUSE AT OAK KNOLL, PASADENA, CAL.

MYRON HUNT,
ARCHITECT

(See floor plans shown elsewhere in this issue)

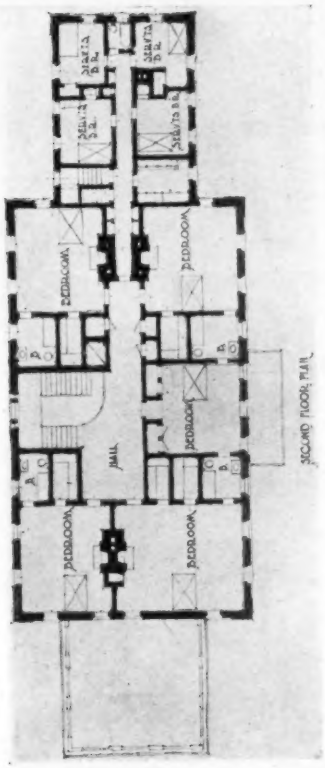
DINING ROOM

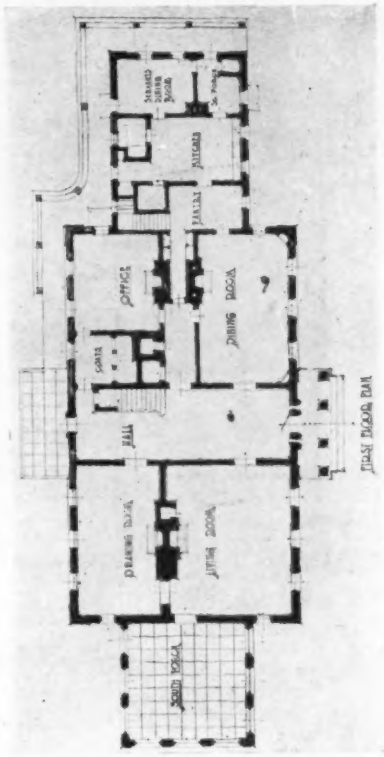
LIVING ROOM

OWNER'S BEDROOM

A HOUSE AT
OAK KNOLL, PASADENA, CAL.

MYRON HUNT,
ARCHITECT





A HOUSE AT OAK KNOLL, PASADENA, CAL.

MYRON HUNT, ARCHITECT

(For exterior and further interior views see Plate Section)

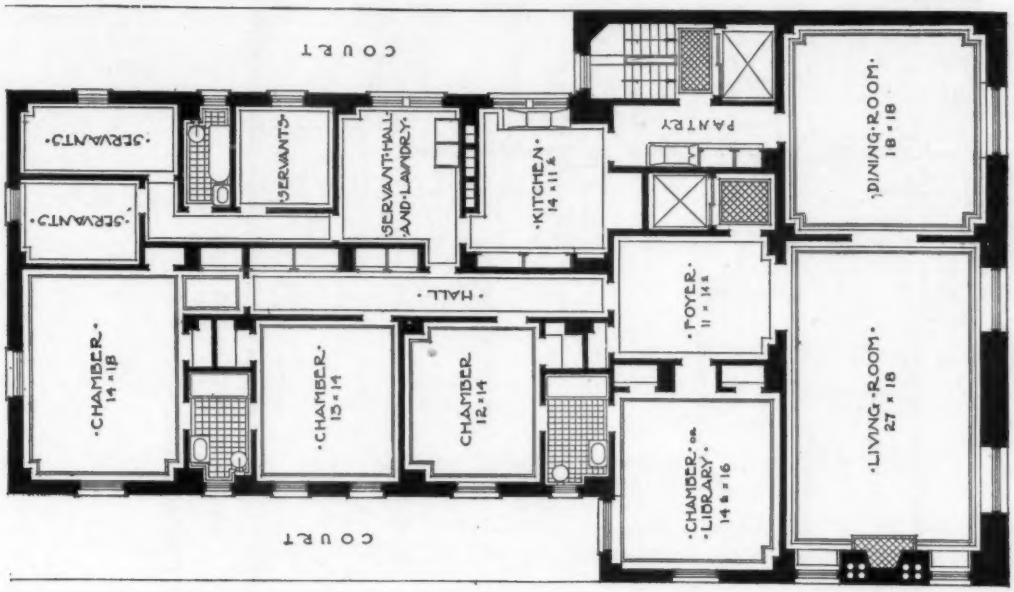
XUM

TYPICAL FLOOR PLAN

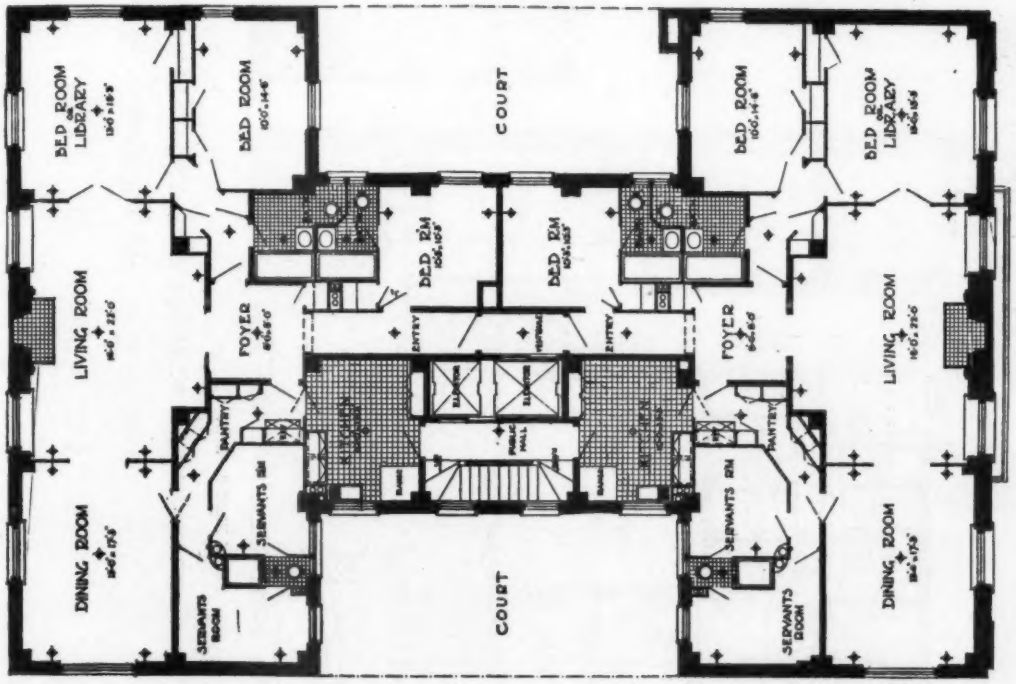
APARTMENT HOUSE, NO. 630 PARK AVENUE, NEW YORK

J. E. R. CARPENTER, ARCHITECT

(For exterior views see Plate Section)



TYPICAL FLOOR PLAN, 3 EAST 85TH STREET

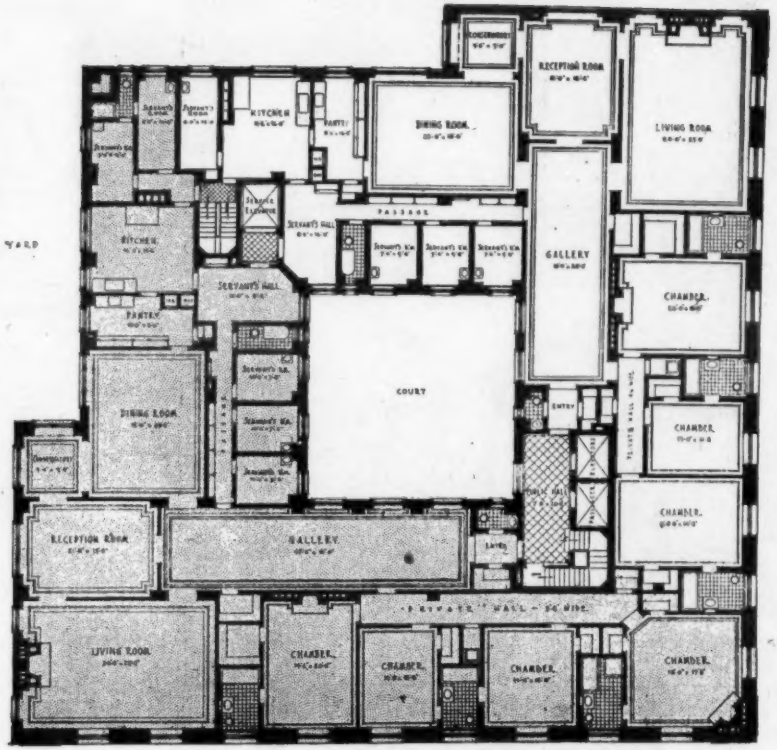


TYPICAL FLOOR PLAN, 116 EAST 58TH STREET

TWO APARTMENT HOUSES IN NEW YORK, J. E. R. CARPENTER, ARCHITECT

(For exterior views see Plate Section)

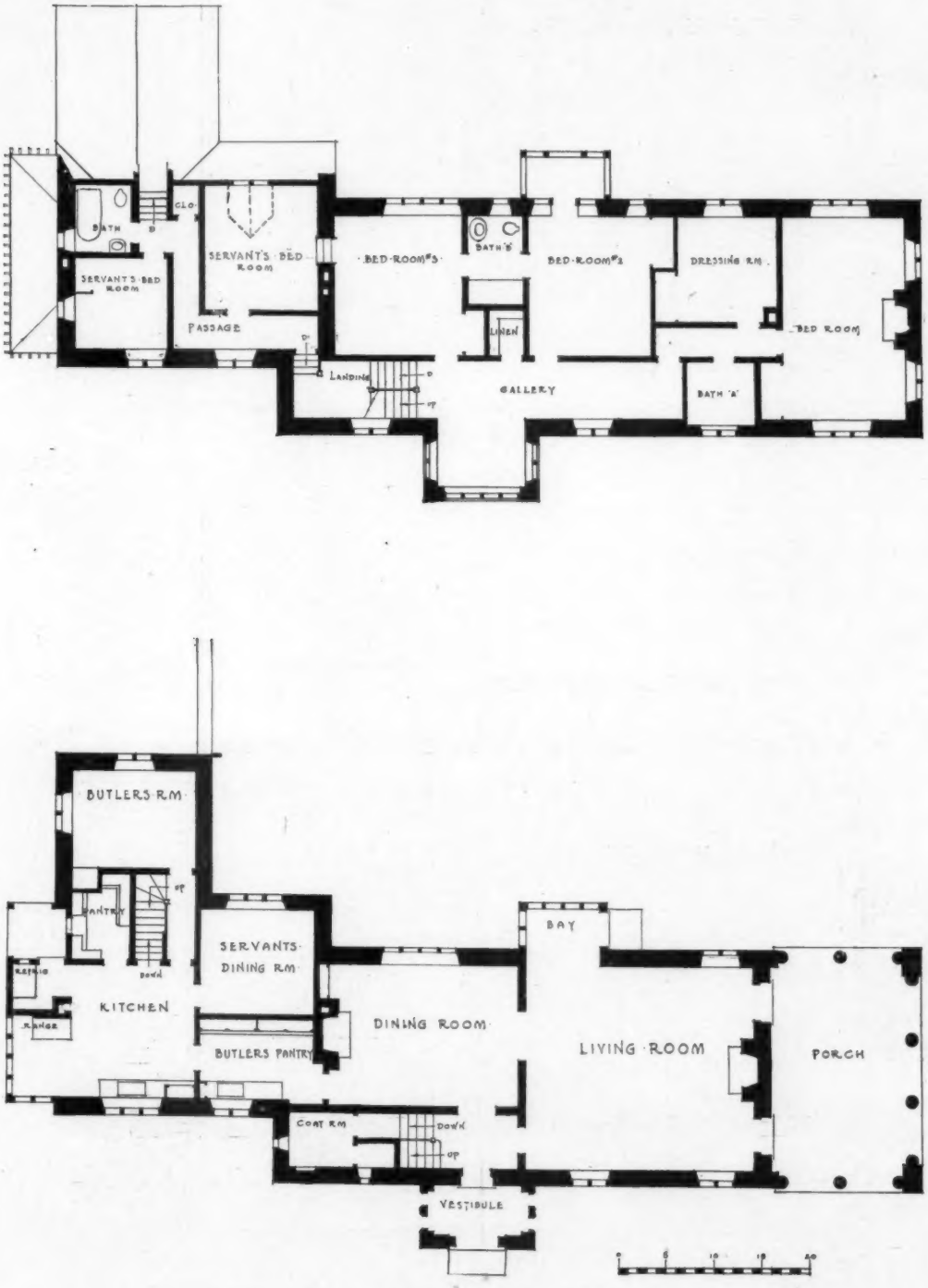
FIRST FLOOR PLAN



SECOND TO FIFTH FLOOR PLAN

APARTMENT HOUSE, NO. 907 FIFTH AVENUE, NEW YORK, J. E. R. CARPENTER, ARCHITECT

(For exterior views see Plate Section)

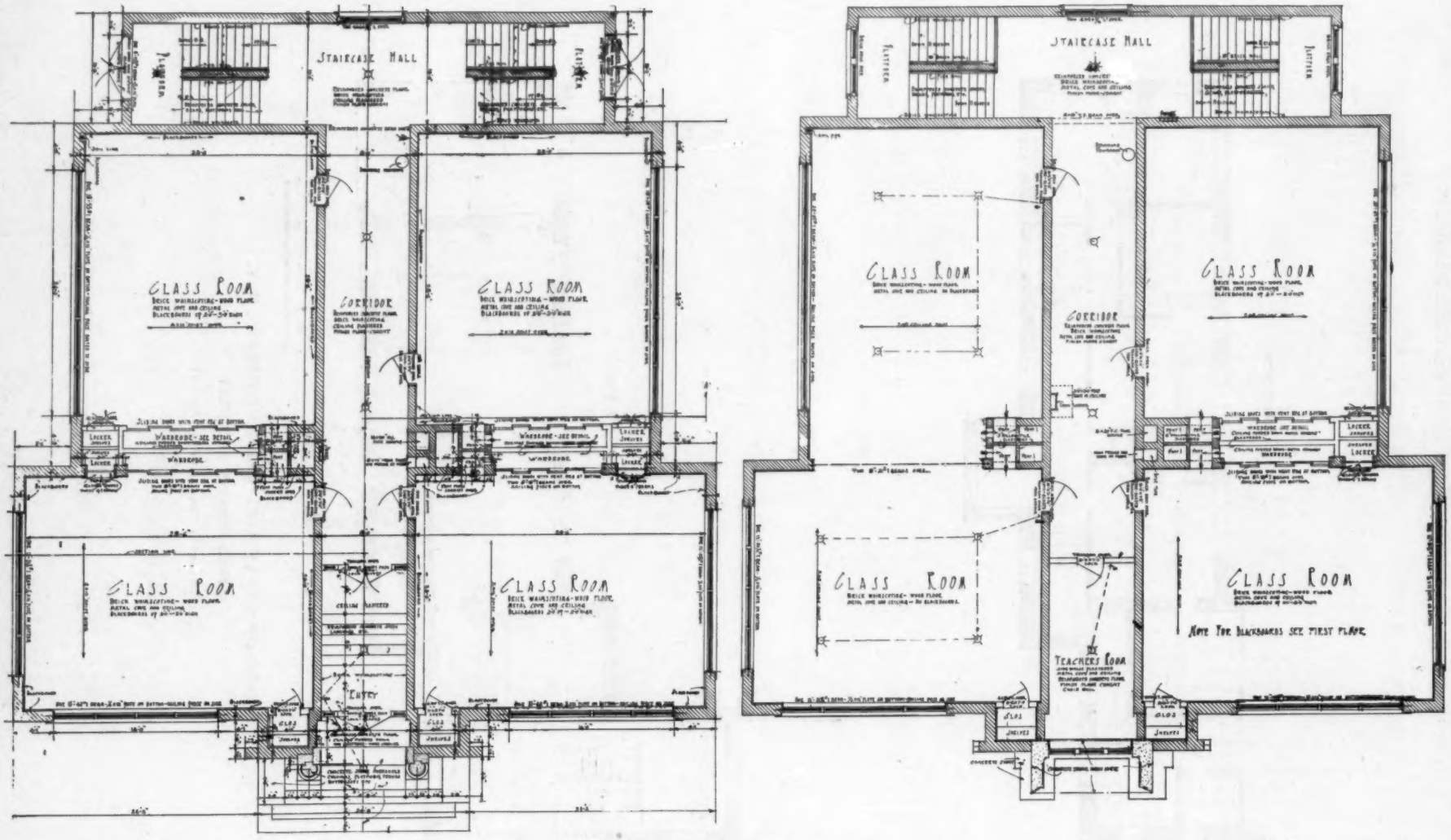


HOUSE OF MRS. LEOPOLD CAHN, HARTSDALE, N. Y.

ALFRED HOPKINS, ARCHITECT

(For exterior views see Plate Section)

XUM

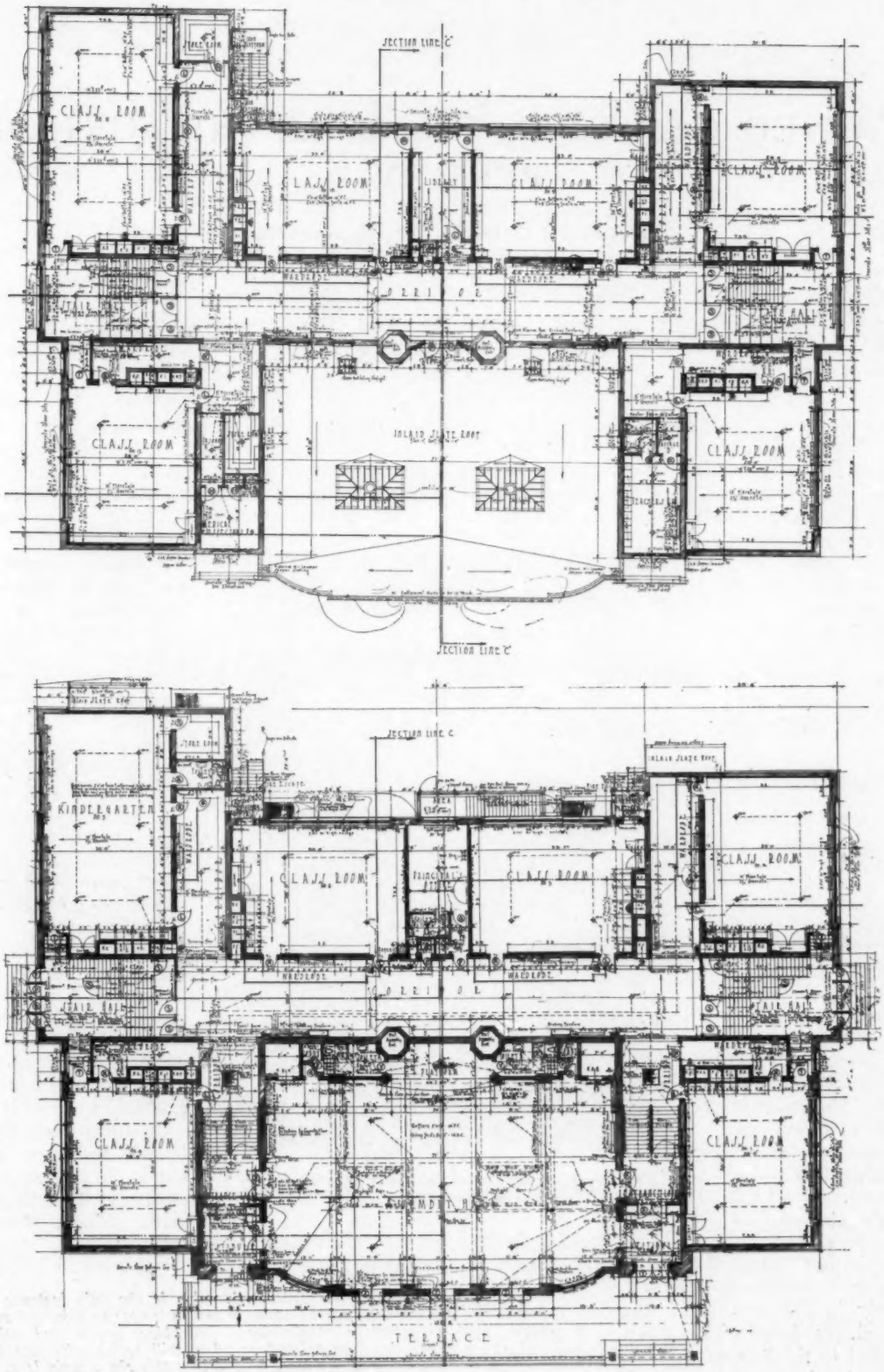


FIRST AND SECOND FLOOR PLANS

ST. LAWRENCE SCHOOL, WEST HAVEN, CONN.

BROWN & VON BEREN, ARCHITECTS

(For exterior view see Plate Section)



FIRST AND SECOND FLOOR PLANS

STRONG SCHOOL, NEW HAVEN, CONN.

BROWN & VON BEREN, ARCHITECTS

(For exterior view see Plate Section)

XUM

STAINED GLASS—II. (Continued) HISTORICAL PERIODS

BY JOSEPH G. REYNOLDS, JR., Craftsman

EARLY in the thirteenth century there came into use in France a new type of ornamental design called grisaille, composed chiefly of tints of white glass with spots and strips of pure color in geometric forms with a foliated pattern woven in and through them, (Fig. 5). No doubt this grisaille glass became popular on account of its being relatively inexpensive, and because it furnished a means of giving a soft, grey light wherever needed without the glare which plain, undecorated glass produces.

Beautiful thirteenth century grisaille may be found in Salisbury Cathedral, and the "Five Sisters" at York, likewise, are prized by every glass lover.

Middle Gothic or Transitional Glass, Fourteenth Century

Broadly speaking, the fourteenth century was a period of transition between the virile archaism, the strong rich color, the direct bold treatment of the early work and the weak pictorialism, the faded color, and the delicate treatment of the later Gothic. As has been so often remarked, naturalism of ornamental detail was a distinguishing characteristic and this naturalistic feeling finally killed the last vestige of the classical influence of the early Byzantine traditions.

Early in this century it was discovered that white glass painted with a solution of silver and subjected to the heat of a kiln would be stained yellow, the tint varying from pale lemon to deep orange.* The quality of this yellow stain was distinctly different from the pot-metal color used heretofore. Being practically on the surface of the glass it had a transparency and brilliancy, in contrast to the depth and richness of the twelfth and thirteenth century pot-metal, in which the color was diffused throughout the body of the material. In the early twelfth and thirteenth century windows where strong colors predominated this pot-metal yellow held its place, but when larger quantities of white glass came into use the lighter and more delicate yellow stain was far more harmonious. This fact is clearly proved by comparing the earliest fourteenth century canopies (which, being cut in pot-metal yellow, were heavy and hot in appearance), with the later ones, where white glass and silver stain were employed to produce beautiful effects. Thus, the discovery of silver stain had a great influence in modifying the course of design from this time forward, no doubt encouraging the more abundant use of white glass.

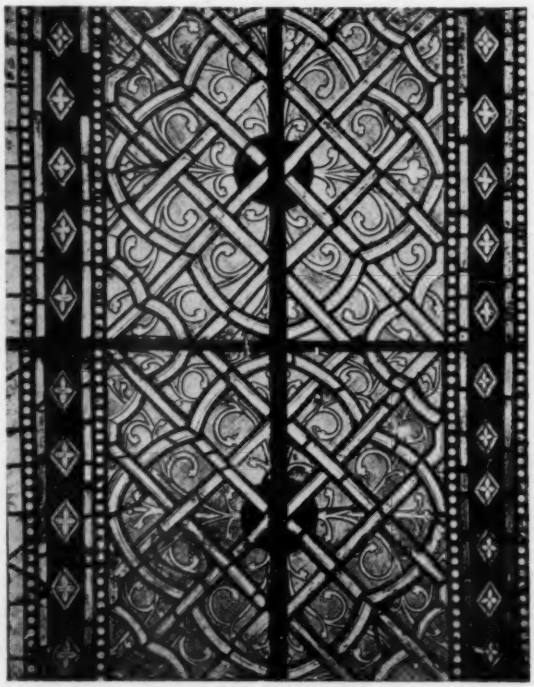


Fig. 5. Late Thirteenth Century Grisaille from the Cathedral at Chalons-sur-Marne

In illustration Fig. 6 we have an example of fourteenth century transitional work. Single figures of Old Testament characters in blue, green, gold, and white on ruby backgrounds and in pur-

Even to the present day this is the only instance in which the honest craftsman ever attempts to paint a transparent color on his glass. Red, blue, green, and other enamel colors painted on glass will perish with age but centuries of use have proved that this silver stain is absolutely permanent.

ple, green, gold and white on blue backgrounds are placed under architectural canopies. These canopies in full colors and whites are larger and of greater importance than any heretofore used. Above and below these richly colored figure sections are units of grisaille. The broad borders common to earlier work are necessarily smaller in these windows on account of the narrowness of the lancets. As the particular example here shown belongs to the first part of the fourteenth century, naturalistic tendencies in the details of the ornament are not strikingly in evidence. But in the drapery of the personages it may plainly be noted that smear shading is now commonly relied upon to give a sort of flat bas-relief modelling of form.

Taken as a whole, fourteenth century glass is the least interesting period of Gothic, for while there has been a straying away from the early traditions the new spirit has not reached the freedom of later achievement.

Late Gothic Glass—Fifteenth Century

The outstanding characteristics of fifteenth century glass are the use of the architectural canopy, the large proportion of white glass, and the extraordinary delicacy and finish achieved in the painted work.

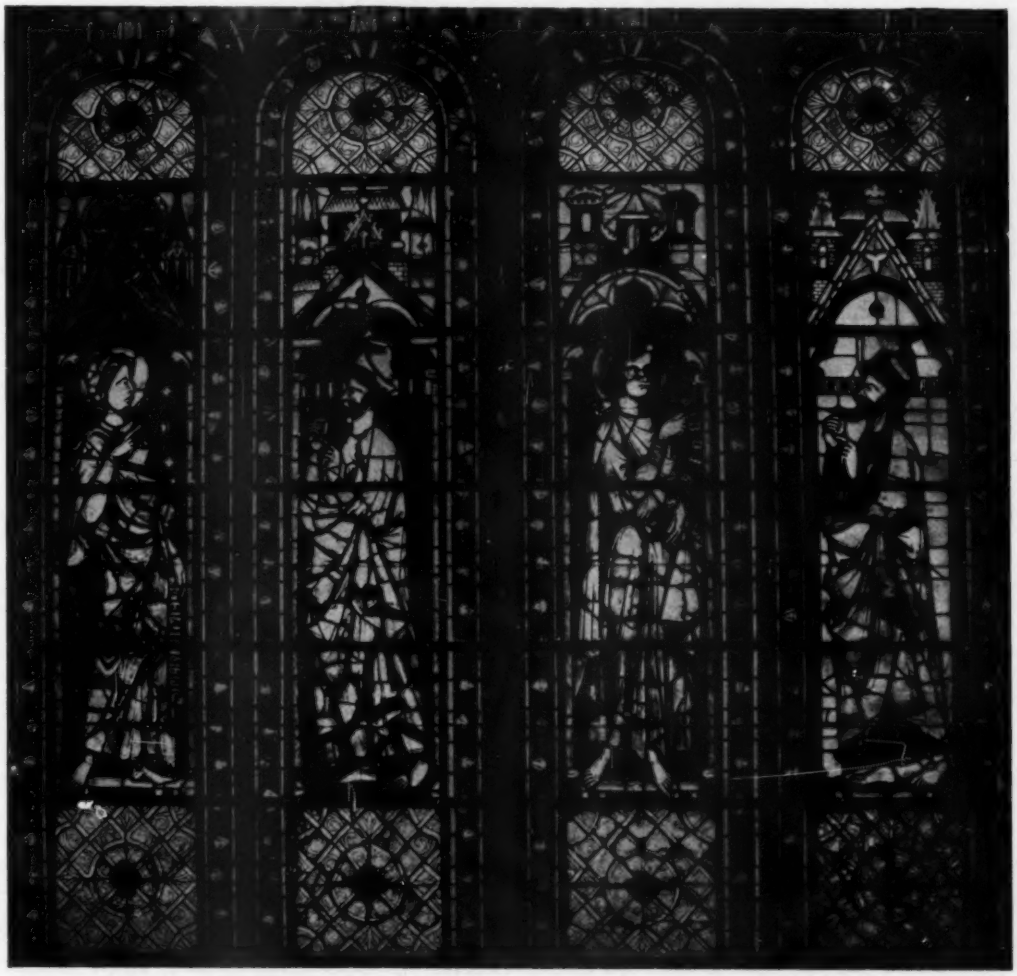


Fig. 6. Early fourteenth Century Window from Church of S. Urbain, Troyes

In twelfth and thirteenth century glass design the architectural canopy was a subordinate feature and took its place as a mere bit of ornament. It was leaded in low-toned whites and color and was an integral part of the design. In the fourteenth century the canopy assumed an importance entirely out of proportion to its value from the standpoint of good taste. In the fifteenth century the canopy work was sometimes used in an extremely

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effective way but more often it was a clumsy affair, a makeshift method of framing and tieing together separate figure subjects—a mode far inferior to the earlier custom of placing these subjects within medallions.

From the beginning of the thirteenth century onwards there was a gradual decline in the Art—a forsaking of the earlier principles of pure decoration for an ever increasing interest in pictorial effect and realism.

Of course beautiful windows were made in the fourteenth and the first half of the fifteenth century — windows in which the painter was still subservient to the glazier. But the fourteenth century worker was animated by a desire to diminish the gloom and darkness of the thirteenth century churches by letting in more light. This object was attained by employing more and more white glass, until finally the windows were no longer glorious in color. And so in the fifteenth century we find white glass predominating, and such color as was used never had the purity and brilliance of earlier times.

The difference between the thirteenth and the fifteenth century worker is, that one is primarily a glazier and glories in color, the other cares less about color, thinks first of painting, is primarily a painter. But the greatest opportunities for achieving beauty in glass lie in the use of splendid color. If beautiful in design and color a window may still be lovely even though painted by an inferior hand. But even masterly painting can never make a thing of beauty out of a window in which the color combinations are weak or are poorly proportioned.

In illustration Fig. 7 we have a good example of a typical fifteenth century window from the Cathedral of Bourges. A Bishop and a Pope robed in the richly embroidered ecclesiastical vestments of their time stand in niches formed by a highly developed architectural canopy. The space behind the figures is filled by a damasked curtain, not plainly shown in the illustration. In the panel containing the Pope, above the curtain and just below the groined vaulting of the canopy a distant city is painted in white and stain. It can easily be seen that the painter and not the glazier has the most to say in this window. The emphasis is no longer upon the color as it was in the glorious days of stained glass. The trace lines have now become relatively unimportant and the craftsman delights most in getting delicate effects of light and shade, beautiful textures and charm of technique. The ideal of the glass "painter" has almost been reached, (an ideal that has been unfortunately, all too dominant in modern times).

Fig. 7. Fifteenth Century "Canopy" window from the Cathedral at Bourges

Renaissance Glass Sixteenth Century

In the sixteenth century, Renaissance "glass pictures" came into fashion. They were essentially pictorial in style; and exquisite drawing, high relief in shading, and atmospheric effects were striven for. Except for these mistaken ideals the glass of the first half of this century was honest enough in character. But in the second half of the century there was a sudden and rapid decline in craftsmanship, due principally to the discovery of soft enamel paints of many colors.

The painter was now in his glory. With nice even sheets of glass, clear white or of light tints, he could paint pictures as easily as his fellow artists could paint on canvas. The ideal toward which window design had been tending ever since the early Gothic days had at last been achieved!

XUM

But the results were most deplorable. The depth and purity of color of the earlier work were entirely lost, the glass was dimmed with heavy, opaque shadows, and owing to the expansion and contraction of heat and cold, the lightly fired soft enamels inevitably peeled off, exposing the thin white glass underneath.

Far from mellowing in tone, as mosaic glass does, it is characteristic of enamelled windows that they merely grow faded, obscure, and shabby. After a time robes painted in enamels look as though they had been moth eaten; the virtue has gone from them, the glory is departed.

Illustration Fig. 8 shows a portion of a sixteenth century window from the Cathedral at Chalons-sur-Marne. One panel depicts Cain slaying Abel and the other shows Adam and Eve at their daily toil. Symbolism plays no part in this work. The whole story is told as plainly as the painter could do it in the medium in which he worked. It would be very difficult even in our day to depict human passion and fear more graphically than is done in this Cain and Abel panel. Nobility of design, charm of color, spiritual atmosphere—all the possibilities for beauty inherent in stained glass, are deliberately sacrificed for pictorial effect.

The seventeenth and eighteenth centuries were a period of complete decadence in the craft, when translucence was sacrificed to painting, and the picture became more obvious than the glass.

(To be continued)

Fig. 8. Sixteenth Century picture Window, from the Cathedral at Chalons-sur-Marne

SOCIETY OF BEAUX-ARTS ARCHITECTS

DIRECTOR OF THE INSTITUTE, LLOYD WARREN

ARCHITECTURE, RAYMOND M. HOOD SCULPTURE, JOHN GREGORY

INTERIOR DECORATION, ERNEST F. TYLER MURAL PAINTING, ERNEST C. PEIXOTTO

OFFICIAL NOTIFICATION OF AWARDS—JUDGMENT OF APRIL 18TH, 1922

SECOND PRELIMINARY COMPETITION FOR THE 15TH PARIS PRIZE

OF THE

SOCIETY OF BEAUX-ARTS ARCHITECTS

PROGRAM

The Annual Committee on the Paris Prize proposes as subject of this Competition:

"DEPARTMENT OF THEORY AND MILITARY RESEARCH IN A WAR COLLEGE"

In the neighborhood of Washington, D. C., is the site of a new War College made necessary by the technical developments of the late war. It consists of several departments and the Department of Theory and Military Research, subject of this program, is intended for the training of West Point graduates and seasoned line officers in the more profound theories of warfare. It is housed in a group of buildings entirely separated from the rest of the college.

The requirements are:

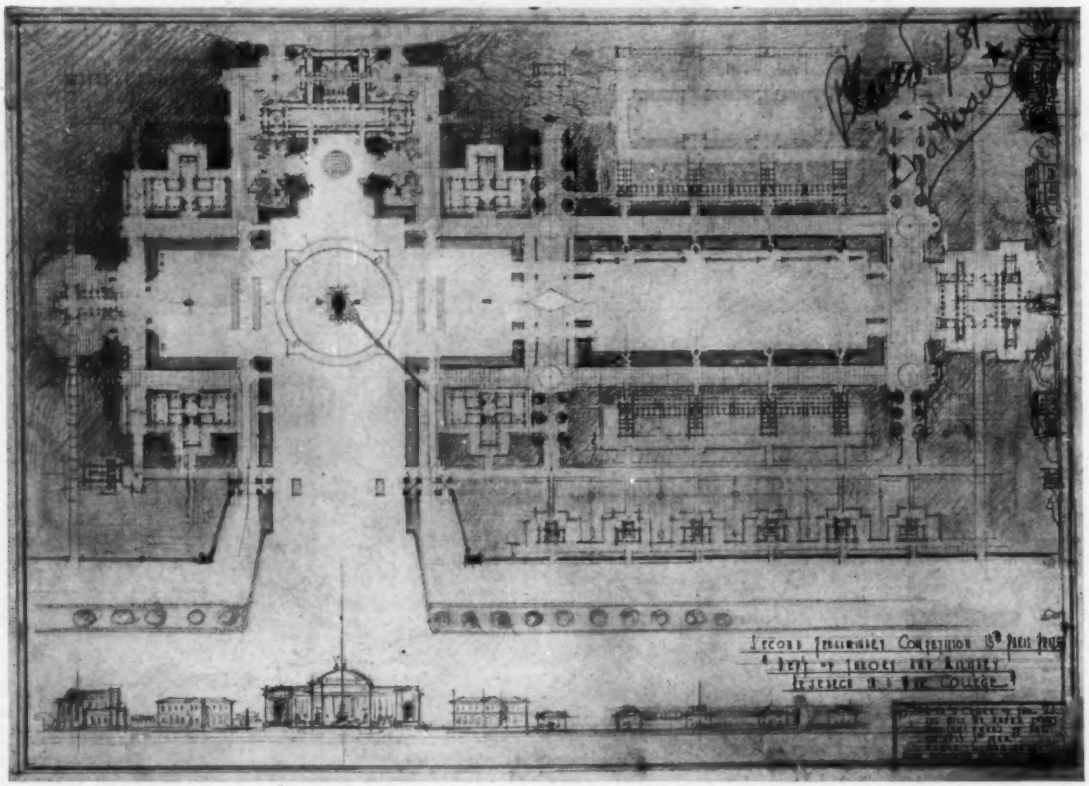
1. A small administration building.
2. Four buildings for class and lecture halls, each with a ground area of 5,000 square feet.
3. A building for the exhibition of relics, documents, etc., with an auditorium to seat about 300.

The treatment of the buildings should be of a monumental, military character, the grounds formally planned and laid out with trophies and memorials. The group will be completed by:

4. A chapel.
5. Dormitories for 300 students.
6. A mess hall.
7. A club house, which may be connected with the mess hall.
8. Six officers' houses.

The property is a rectangular plot 700' x 1,400', the main entrance will be on one of the long sides.

Jury of Awards:—J. G. Rogers, L. Warren, R. M. Hood,



E. L. Babitsky — John Huntington Polytechnic Institute

Placed 1st—Second Medal

A Department of Theory and Military Research in a War College

J. M. Howells, Welles Bosworth, A. Kahn and H. O. Milliken, Chairman.

Number of Drawings Submitted:—17.

AWARDS:—

PLACED FIRST—Second Medal:—E. L. Babitsky, John Huntington Poly. Inst., Cleveland.

PLACED SECOND—Second Medal:—L. Fentnor, Patron—F. C. Hirons, New York.

PLACED THIRD—Second Medal:—R. A. Fisher, Carnegie Inst. of Technology, Pittsburgh.

PLACED FOURTH—Second Medal:—J. G. Schuhmann, Jr., Columbia Univ., New York.

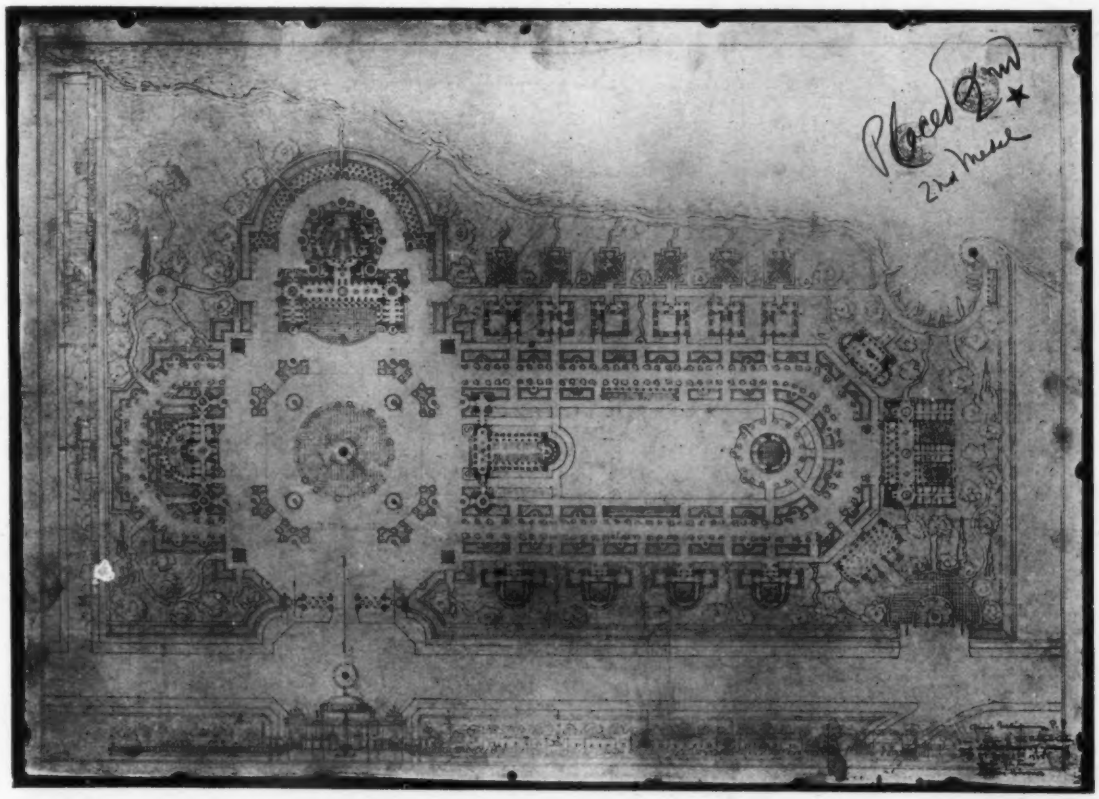
PLACED FIFTH—Second Medal:—E. W. Burkhardt, Columbia Univ., New York.

PLACED SIXTH—(1st Alternate)—Third Medal:—R. Bailey, Bronxville Road, Bronxville, N. Y.

PLACED SEVENTH—(2nd Alternate)—Third Medal:—C. E. Jenkins, Univ. of Penna., Philadelphia.

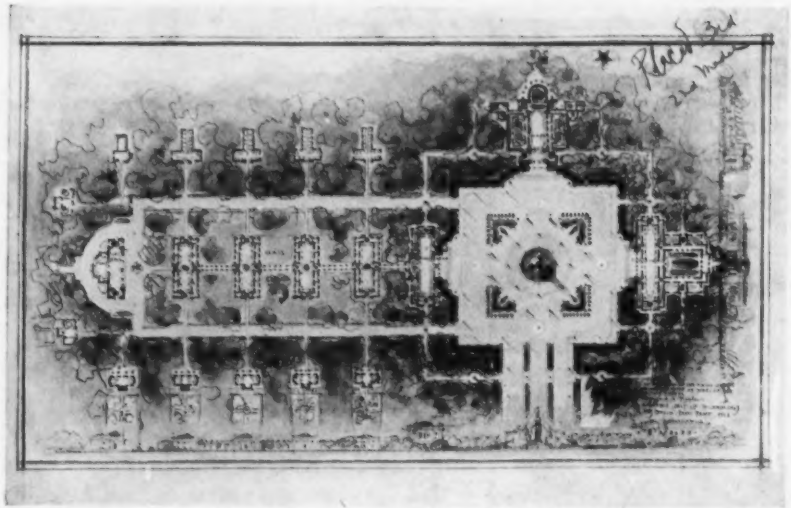
FIRST MENTION—(H. C. for Paris Prize):—A. G. Clay, Yale Univ., New Haven.

MENTION:—W. F. McCaughey, Jr., Chicago Sch. of Architecture, Chicago; G. K. Geerlings and H. S. Bent, Univ. of Penna., Philadelphia.



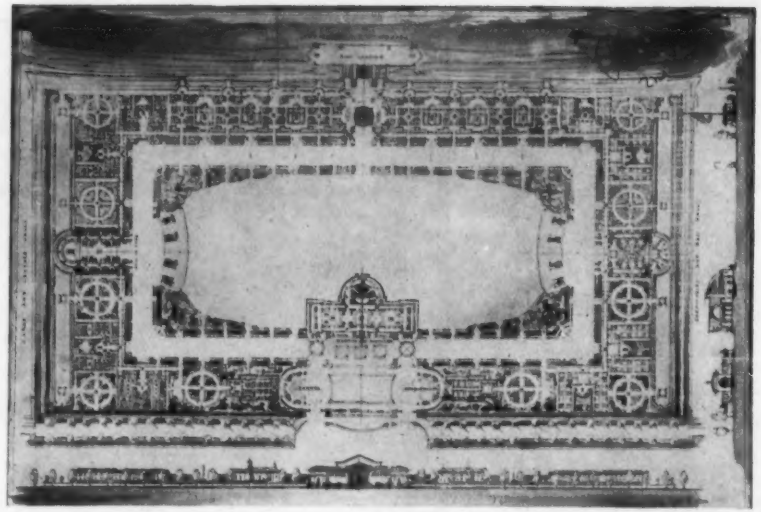
L. Fentnor — Patron, F. C. Hirons

Placed 2nd—Second Medal
A Department of Theory and Military Research in a War College



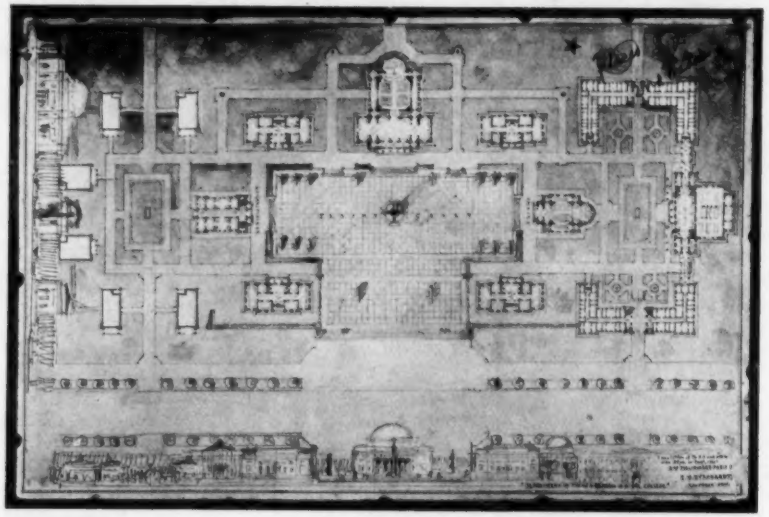
R. A. Fisher — Carnegie Institute of Technology

Placed 3rd—Second Medal



J. G. Schuhmann, Jr., — Columbia University

Placed 4th—Second Medal



E. W. Burkhardt — Columbia University

Placed 5th—Second Medal

SECOND PRELIMINARY PARIS PRIZE

A Department of Theory and Military Research in a War College

STUDENT WORK, BEAUX-ARTS SOCIETY OF ARCHITECTS

DEPARTMENT OF ARCHITECTURAL ENGINEERING

ARCHITECTURAL ACOUSTICS—III

The Nature and Reduction of Office Noises

BY PAUL E. SABINE*

AS illustrative of the general procedure the comparison of the cloth covered felt with bare felt will be worked out in detail. The cloth covered sample tested was a panel 2.43 x .95 meters, with an area of 2.30 square meters. Hair felt, 1 inch thick was used. Over this and at a distance of ¾ of an inch, was stretched a covering of unbleached muslin, weighing four ounces to the yard. With the panel in the room, the time of reverberation was determined as the average of fifty observations, to be 5.14 seconds. When the panel was removed, the time was 6.43 seconds. In Table 1, the absorbing power of the empty room for the downstroke of the telegraph sounder is given as 8.58. By equation (*6*)

$$8.58 \times 6.43 = a' \times 5.14,$$

from which, a', the absorbing power of the room with the panel, is 10.72.

$$a' - a = 2.14,$$

the absorbing power of the panel in terms of the unit square meter of uncovered felt. From the curve of Fig. *3*, the absorbing efficiency of uncovered felt when used in units of 2.3 square meters is found to be 83% as great as is that of a single square meter. Hence a test panel of the latter

Fig. 8. Acoustical Treatment installed in the new Federal Reserve Bank of Boston
R. Clipston Sturgis, Architect

* *Riverbank Laboratories, Geneva, Ill.*

material is equal to 1.91 of our single square meter unit. The absorbing efficiency of the covered felt is, therefore 1.12 times as great as that of bare felt for the sound produced by the downstroke of the sounder.

In Tables 2, 3 and 4, are presented the results of tests conducted in a similar manner upon the relative efficiencies of the surfaces there described. The third column gives the absorptive power of the area tested, expressed in terms of one square meter of uncovered felt. The fourth column gives the absorptive power of the same area of uncovered felt as determined from the curve of Fig. 6. The fifth column gives the relative efficiency of the surface in question to that of bare felt when the two are employed in equal areas.

TABLE 2

No.	Source	Absorbing Power	Absorbing Power, Same Area, Bare Felt	Relative Efficiency
1.	Upstroke, Sounder	2.28	1.91	1.19
2.	Downstroke "	2.14	"	1.12
4.	Typewriter B	2.26	"	1.18
5.	Typewriter C	1.94	"	1.02
				1.13 Ave.

Hair Felt, 1″ thick, covered with unbleached muslin, weighing 4 oz. to the yard, ¾″ air space. Test Area 2.30 square meters.

TABLE 3

No.	Source	Absorbing Power	Absorbing Power, Same Area, Bare Felt	Relative Efficiency
2.	Downstroke, Sounder	2.25	3.12	.80
3.	Typewriter A	2.62	"	.84
4.	Typewriter B	2.63	"	.84
5.	Typewriter C	2.30	"	.74
				.81 Ave.

Sound-absorbing tile, 1″ thick, laid on 4″ hollow tile, Test Area, 4.46 square meters.

TABLE 4

No.	Source	Absorbing Power	Absorbing Power, Same Area, Bare Felt	Relative Efficiency
1.	Upstroke, Sounder	2.08	3.12	.67
2.	Downstroke "	2.24	"	.72
3.	Typewriter A	1.99	"	.64
5.	Typewriter B	1.95	"	.62
				.66 Ave.

Sound-absorbing plaster, two coats, 5/8″ total thickness, applied directly to 4″ hollow tile. Test Area, 4.46 square meters.

As is to be expected, the efficiencies of any one material are somewhat different for the different sounds, yet the difference is not great, and the average values given in the tables may be taken as a measure of the efficiencies of these surfaces in the reduction of machine noises in offices.

The renewal of these surfaces is a matter of great practical importance. Painting tends to fill the surface pores, upon which the sound absorbing properties depend in large measure. Tests were made to determine the loss of efficiency produced by painting. Table 5 shows the effect of paint upon the absorption of the sound of the downstroke of the telegraph sounder by the tile and by the cloth covered felt. In the case of the latter, as has been stated, absorption is due to the porosity of the fabric and the felt as well as to their inelastic yielding under the alternating pressure of the sound wave. Insofar as the paint renders the fabric impervious, it reduces the absorption due to porosity, replacing the porous surface through which the motion of the air particles is freely transmitted to the highly absorbent felt beneath, by a heavier membrane, less yielding, and consequently more highly reflecting. The advantage of spraying, over the application in the ordinary way is strikingly shown in the figures for the tile. The smaller reduction in absorption produced by the special fabric coating over that produced by the cold water paint is to be ascribed to the smaller extent to which the former fills the meshes of the cloth. This is due to the fact that the body of the special coating was a very light material, and to the volatile nature of the solution in which it is suspended.

TABLE 5

Material	Treatment	Relative Efficiency
Sound absorbing Tile	—Unpainted	.80
"	—Cold water paint, sprayed with air-brush	.60
"	—Cold water paint, two coats applied with brush	.24
Muslin covered Felt	—Unpainted	1.12
"	—Painted with special fabric coating, one coat	.70
"	—Painted with cold water paint, one coat	.45

Experiments have shown that oil paints reduce the sound absorbing efficiency even more than does the water paint. It may be noted in passing, that the acoustical effects of painting, in general, are a question of the physical characteristics of the unpainted and the painted surfaces. Professor

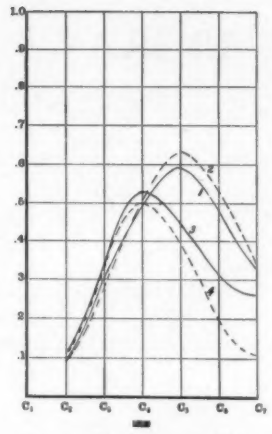


Fig. 9. Absorption Coefficients of, (1) uncovered felt; (2) the same, covered with unbleached muslin; (3) the same, muslin painted with special fabric coating; (4) the same, muslin painted with cold water paint. Area tested, 4.46 square meters

Sabine has shown that two coats of oil paint decrease in a marked degree the absorption of musical tones by a brick wall. In this Laboratory, the walls of the Sound Chamber, originally of hard gypsum plaster with a "putty finish" were painted with a priming coat of flat paint and a finish coat of enamel paint. The effect on the time of reverberation was practically negligible. Speaking generally, it is quite safe to say that, for the range of pitch that is important in music and speech, painting will produce no *increase* in absorption sufficiently great to be of practical importance in improving the acoustic properties of a highly reverberant room. In the case of surfaces which are originally somewhat porous, it may produce an appreciable *decrease* in their sound absorbing merits.

Comparative Absorption of Pure Tones and Metallic Sounds

A comparison of the results just presented with the absorption co-efficients of these same materials for sustained tones leads to some interesting conclusions. In Fig. 9 is shown the absorbing power per square meter for tones from 128 to 4096 vibrations per second of the bare felt and of felt with the coverings described. As has been already pointed out the values obtained by the Reverberation Method, will depend upon the area, and, to a less degree upon the shape of the absorbing surfaces upon which the tests are conducted. The values here given are for surfaces, 1.83 x 2.44 meters, these being the dimensions of the plaster and tile walls tested. In Fig. 10 the co-efficients for the acoustical tile are given, and the effect upon the porous surface of this material produced by painting in the manner indicated. In Fig. 11, the upper curve gives the co-efficients for a particular sample of the sound absorbing plaster. For the sake of comparison, the lower curve for lime plaster upon metal lath is added.*

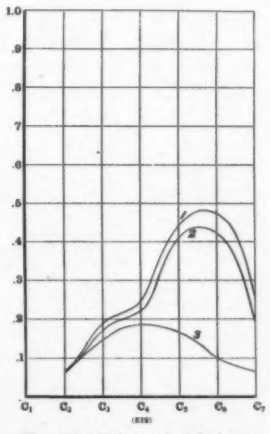


Fig. 10. Effect of painting on the absorption coefficients of acoustical tile. (1) unpainted; (2) painted with light coat of cold water paint, applied with spray; (3) painted with two coats of the same, applied with brush. Test area, 4.46 square meters

The point of chief interest brought out by comparing the values presented for pure tones, with the comparative values obtained for the metallic clicks of typewriters and the like, is the fact that, considered from the standpoint of their absorption by these materials, the metallic sounds behave like pure tones of high pitch. If the co-efficient of any one of the surfaces for a pure tone be divided by the corresponding co-efficient of uncovered felt, the ratio is the efficiency of the surface in question in terms of the felt. Carrying out this calculation, it appears that in every case, the relative efficiency for the impulsive sounds, agrees very closely with the relative efficieney of the same surface for pure tones lying in the range between C_5 (*1024*) and C_6 (*2048* vibrations per second).

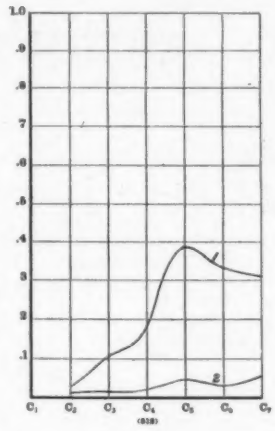


Fig. 11. Absorption Coefficients of plaster. Upper curve is for two coats of acoustical plaster, approximately 5/8-in. thick, applied to hollow tile. Lower curve is for lime plaster on metal lath

This points to the important conclusion that the most effective treatment for the reduction of the noises here considered is that having a maximum absorption for the range of pure tones just given, whereas, for the reduction of the reverberation of speech sounds, the octave below this, namely C_4 to C_5, is the most important range.

Numerous other questions suggest themselves. The effect of thickness of the absorbing material upon its efficiency is of importance. The closeness of the texture of the covering membrane, as well as the thickness of the air space between the felt and the covering are points worthy of study. Some of these have been experimentally studied, but the limits of the present paper will not permit their consideration.

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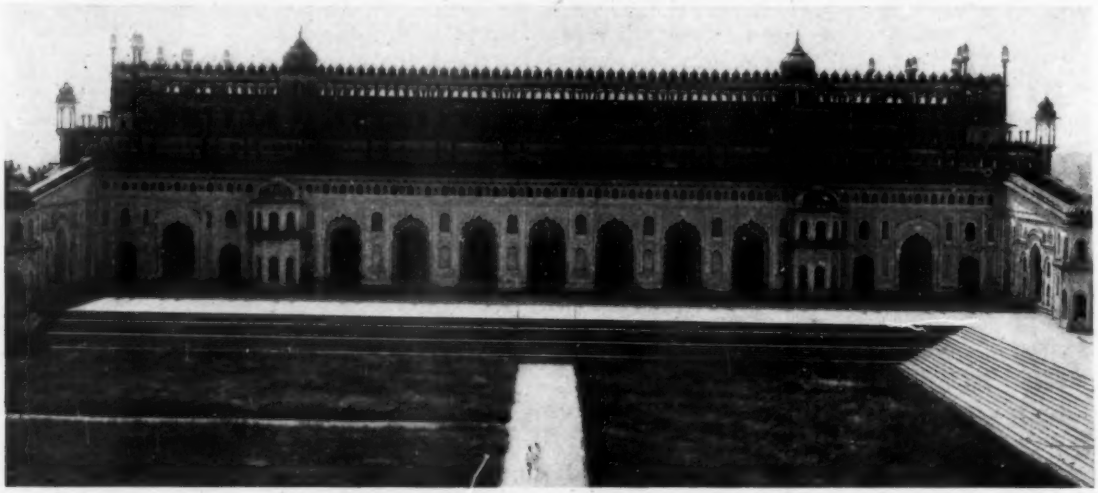
* *See "Collected Papers on Acoustics," page 204, by Wallace C. Sabine.*

NOTE—This is the last of a series of three articles, the first of which appeared in the issue of May 24.

MOSQUE ASAF-UD-DAULA IMAMBARA AT LUCKNOW

AN item at present going the rounds of newspapers and popular periodicals, mentions an old mosque at Lucknow, India, built in 1780, the mosque being described as "a solid concrete building containing the largest known room without columns." The room in question must have held the honor conferred on it for many years, but modern constructors have deprived it of its unique distinction. Through the courtesy of Mr. Alexander W. Weddell, American Consul General at Calcutta, we have obtained a description of this famous building, as well as the photograph used in our illustration.



Mosque Asaf-ud-Daula Imambara at Lucknow, India

A letter dated November 7, 1921, written by the District Engineer at Lucknow and addressed to the Executive Engineer, Lucknow Provincial Division, contains the statement that after considerable investigation and inquiry made among old masons and other elderly citizens of the town, he learned that the mortar probably contains the following ingredients:

1. Shell lime (seep ka chuna).
2. Vetch flour (Mash ka Ata).
3. Raw sugar (Gur).
4. Wood apple (Bael Giri).
5. Plant Fenugreek, dried and powdered (Methi).
6. Cannabia Sativa (Hemp Sanni).
7. Pazawa Ash (Pazawah ki Rakh).

The District Engineer was informed that no stone lime was used in the mixture. The exact proportions of the various ingredients are not known.

In Mr. Weddell's description he refers to Fergusson's "History of India and Eastern Architecture," Volume II, pages 328-29.

Fergusson says the principal apartment is 162 feet long and 53 feet 6 inches wide. On the two sides are verandas respectively 26 feet 6 inches and 37 feet 3 inches wide and at each end an octagonal apartment 53 feet in diameter. He then becomes inaccurate in his description. From old records Mr. Weddell found that Asaf-ud-Daula moved the capital of Oudh to Lucknow in 1780, owing to family quarrels.

In 1782 he issued a proclamation offering 100,000 rupees for the best design for an Imambara (public praying place). One Karim Ullah, an unknown man, put forward this design and obtained the reward. As Fergusson rightly remarks, it is conceived on so grand a scale as to entitle it to rank with the buildings of an earlier age. It was built by Asaf-ud-Daula in 1784 to provide work for the starving populace during a famine.

The design is a daring bit of engineering, undertaken largely in blind ignorance of the possible dangers. The thick walls were built of lakauri brick, 6 in. by 4 in. by ½ in., laid up in the mortar previously described. The roof is elliptical but of such a flat curve as to be practically flat. It is composed of the thin lakauri brick laid up in

mortar but no attempt was made to incorporate any bond in the work so the roof slab is always spoken of as being made of concrete.

The room was first filled up completely with mud and the concrete laid over it in a slab about 3½ feet thick. After a period of twelve months, the mud was dug out and the roof remained intact up to date except for a few surface cracks.

Aside from the interesting information obtained by the District Engineer, the secret of the shell lime has perished; but this lime together with ash approximates very closely to the famous Roman lime, and is harder now than the bricks set in it.

On the top of the roof is an elaborate maze of narrow passages. Near the roof runs a gallery to hold the ladies of the Court during big prayer meetings and the only entrance to this gallery is through the maze.

One entrance only has therefore to be guarded to prevent any unauthorized person from having access to the ladies' gallery. The fate of any unauthorized person entering by chance and being lost in the maze is sealed long before he finds his way to the gallery and violates the sancity of the Harem.

The design of the building is unique, as apart from its engineering details it conforms with remarkable exactitude to the conditions laid down in the Koran concerning the disposal of the remains of Kings.

The sepulchre is below in a vault in the exact center of the building and the orientation and depth of the vault are exact. The building is sacred and investigations of these details have probably never been made. The remains of Asaf-ud-Daula repose in a sealed chamber. His tomb is indicated on the floor of the main room and is a place venerated by thousands.

LIFE OF BURIED STEEL FUEL OIL TANKS

AN investigation recently carried out by The Factory Mutual Laboratories regarding the life of buried fuel oil tanks indicates that underground storage, decidedly advantageous from a fire prevention standpoint, need not seriously impair the condition of steel tanks, according to the April, 1922, *Quarterly of the National Fire Protection Association.*

The investigation covered the study of tanks which had been in service from 18 months to 26 years and were buried from 10 inches to 9 feet below ground level. The soils were of sand, gravel, loam, clay or cinders or mixtures of these. In some cases ground water was present and in a few cases salt tidewater. The tanks varied in capacity from 1,100 to 22,000 gallons. In a few instances the tanks were entirely uncovered in making the investigation, while in other cases a section only was exposed. This section included one side to the center line and one end to same point. The character of corrosion, condition and thickness of shell were noted, and in a few cases the scale was examined for analysis. The results of the investigation are given in the accompanying table.

The electrolytic theory of corrosion is the most acceptable one. This assumes that before iron can oxidize it must pass into solution, liberating hydrogen. Corrosion is therefore stimulated by moisture, weak acids, and oxygen. Consequently steel tanks should be buried so as to eliminate these conditions as far as possible.

The conclusion from this investigation may be briefly summarized as follows:

Fill. Cinders stimulate corrosion probably because of the electrolytic action between the steel and the carbon in the cinders. Loam is a better type of fill than cinders although it may stimulate corrosion because its absorptive power furnishes the essentials of corrosion: oxygen and moisture. Clay is better than loam for filling. It is generally damp and delays corrosion because it holds the water in a stagnant condition. Sand is the best filler and acting as a filter prevents many surface impurities from reaching the tank. Oily sand gives the best protection. Gravel is not quite as good as sand.

Protective Coating. Red lead when used alone sometimes allows contact between metal and corroding medium as film may be easily punctured. Asphalt when used alone may also permit contact. Red lead followed by asphalt gives good results. All tanks reported in excellent condition were protected by read lead, asphalt or both. No tanks examined were entirely encased in concrete. It is reasonable to suppose that concrete would offer a good protection.

Tidewater and Ground Water. Tidewater and ground water do not stimulate corrosion to any great extent. Salt water usually forms a hard encrustation. Ground water acts similarly but may stimulate corrosion when the oxygen content is great.

Depth of Bury. If a tank is buried below the zone of active oxygen it is usually below the zone of corrosion. As the depth of bury increases the tendency to corrode decreases.

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Stray Electrical Currents. Stray electrical currents stimulate corrosion but these are not frequent.

General. Steel tanks buried under favorable conditions should last more than 30 years. In damp ground they will last from 15 to 20 years. To resist corrosion best, steel tanks should be coated with red lead and asphalt buried in clean sand three feet deep or more below surface, avoiding ground water and tidewater if possible.

LIFE OF BURIED STEEL FUEL OIL TANKS

Age in yrs.	Depth of top below ground	Protection and condition	Character of soil surrounding tank; and location.
1½	2 ft.	Red lead & asphalt Excellent	Salt marsh lower half, fill above. Everett, Mass.
7	2 ft.	Red lead	Clay, sand, trace of cinders. So. Boston, Mass.
10	2 ft.	Excellent	
7	5 ft.	Probably asphalt Fair	Clay, sand and cinders. Salt tidewater, New Bedford, Mass.
7	7 ft.	Red lead & asphalt Excellent	Sand and gravel, ground water. Waterbury, Conn.
8	3 ft.	Asphalt—Good	Sand, loam and gravel. Lowell, Mass.
9	2 ft.	Probably asphalt Good	Sand, gravel and cinders. Worcester, Mass.
9	3 ft.	Asphalt—Fair	Sand, gravel, loam, cinders, Waltham, Mass.
10	4 ft.	Probably asphalt Good	Sand, loam, trace of cinders. Waterville, Conn.
11	7 ft.	Thick coat asphalt Excellent	Sand, gravel, few cinders. Waterbury, Conn.
11	4 ft.	Asphalt—Good	Clay and sand. So. Auburn, R. I.
12	5 ft.	Asphalt—Excellent	Oil-saturated sand. Salt tide water. New Bedford, Mass.
12	8 ft.	Concrete—Good	Encased in concrete except at manhole, ground water, Taunton, Mass.
13	2 ft.	Red lead asphalt Excellent	Sand and loam. Waterbury, Conn.
13	2 ft.	Red lead Good	Oily saturated sand and clay, ground water. Lowell, Mass.
14	6 ft.	Probably asphalt Poor	Sand, gravel, cinders, trace of oil, ground water and acid. Waterbury, Conn.
15	2 ft.	Red lead Excellent	Black mud, formerly salt marsh. Ground water. Lynn, Mass.
15	9 ft.	Red lead & asphalt Excellent	Oily sand, brackish ground water. Taunton, Mass.
15	2 ft.	Asphalt—Excellent	Clay, sand, trace of cinders. So. Boston, Mass.
16	3 ft.	Probably asphalt Good	Sand, cinders. Fitchburg, Mass.
17	5 ft.	None—Fair	Sand, gravel, cinders, Pawtucket, R. I.
18	9 ft.	Red lead and tar Poor inside	Salt water, some cinders. Brooklyn, N. Y.
20	1 ft.	Red lead Excellent	Sand and gravel. Providence, R. I.
20	2 ft.	Asphalt Excellent	Loam, clay and cinders. Cambridge, Mass.
20	2 ft.	Probably none Good	Clay and sand, ground water. Whitins, Mass.
26	2 ft.	Red lead—Good	Sand and gravel. Whitins, Mass.

Leaking Air Ducts

IN an address to the Stoker Manufacturers' Association a short time ago Mr. H. F. Hagen referred to the importance of air-tightness in ducts and related an interesting experience. In a certain plant the boiler house was laid out with four batteries of boilers, two on either side with underfeed stokers and forced-draft fans. A concrete duct ran underneath the stokers on each side of the room with a sheet metal cross-over of large area forming a connection, making the duct system resemble the letter H. Each side had three forced-draft units.

The plant operated beautifully but could not reach its designed maximum output, the complaint being, of course that the fans were not producing their guaranteed pressure. Mr. Hagen says concrete ducts are the worst enemies of fan men because it is hard to conceive of air at 6 in. or 7 in., only about four ounces to the square inch, escaping in an appreciable amount through a concrete wall six inches thick. Looking at it, however, from the standpoint of a ventilating engineer a 7 in. water column means a head in feet of 65 deg. air of 485 feet. This will give to escaping air exactly the same velocity that an equal head will give to water. This head of water would be equivalent to about 210 lbs. to the square inch and anyone building a concrete structure for water at this pressure would take the utmost precautions against leakage. With the 7 in. air pressure the question of strength does not enter, and because of this too often the leakage is disregarded.

Orders had been given that the interior of the duct be painted with six coats of black asphaltum. The painter, thinking the painting was for the purpose of protecting the metal against rust, painted only the metal cross-over and did not touch the concrete. He had been told nothing about leakage. A leakage test was run on the ducts with the result that the leakage was found to amount to 38% of the total air delivered by the fans. Painting the inside of the duct while under pressure overcame all the trouble.

Testing Fiber Board for Strength

THE strength of paper or fiber board varies greatly according to the amount of moisture in it, says *Technical Notes,* and this amount is continually changing with the atmospheric conditions. As the relative humidity of the air increases, the strength of fiber board declines very rapidly. A piece of corrugated board tested at the Forest Products Laboratory showed a decrease in strength, by the Mullen test, of 59 per cent. when the relative humidity was raised from 65 to 67 per cent.

When fiber boards were subjected to a low, then to a high humidity, and later tested at the low humidity, the results were practically identical with those obtained before the increase in moisture. This proves that the boards had not been injured by the change in humidity, and that variations in the strength of the boards at different humidities are entirely due to a change in moisture content.

The experimental work shows conclusively that when fiber board is bought and sold on strength specifications, the humidity at which the board is to be tested must be stated.

Determining Penetration of Wood Preservatives

THE effectiveness of any wood preservation treatment is measured very largely by the depth to which the preservative penetrates. This can be determined by the following tests, which are used by the Forest Products Laboratory.

The presence of creosote oil is indicated by the dark discoloration, and the degree of penetration may readily be determined by taking a sample at a point free from checks and other imperfections and at a considerable distance from the end. This may be done either with an ordinary ½-inch bit, or with an increment borer, which brings out a core of wood that shows in cross section the depth of penetration and is easily examined. The observation should be made at once, because the oil spreads rapidly over the cut surface. In order to prevent infection, the hole in the treated piece should be tightly closed with a creosoted plug.

As zinc chloride is colorless, the depth of penetration of this preservative must be ascertained by chemical means. After cutting the stick in two or getting a sample with the increment borer, the freshly-cut surface is dipped for not to exceed 10 seconds, in a 1 per cent. solution of potassium ferrocyanide and the excess solution is removed by blotting paper. The sample is then dipped into a 1 per cent. solution of uranium acetate, and dried. The treated portions will be whiter than the natural wood, and those untreated will have a dark red or a maroon color. This method does not give very sharp contrasts on wood which is reddish in color, like red oak, but otherwise is very satisfactory and affords a permanent record.

Another method (developed by Galen Wood) consists in spraying over the freshly-cut surface a mixture of equal parts of a 1 per cent. potassium ferricyanide solution, a 1 per cent. potassium iodide solution, and a 5 per cent. solution of soluble starch. This colors the treated portion a very dark blue, but does not affect the untreated wood. Although the color fades in time, it may be brought back by spraying again.

Sodium fluoride is colorless, and no satisfactory method of showing its presence in wood has been devised.

Mercuric chloride is also colorless, but dipping the wood in a solution of hydrogen sulphide turns the treated area black.

As individual pieces may show an abnormally high or low degree of penetration, a sufficient number of tests should be made to obtain a fair average. Samples should be taken at a considerable distance from the ends of the stick, in order that they will not be affected by the heavy longitudinal penetration from the ends.

Portland Cement Specifications Advanced to American Standards

THE "Specifications and Tests for Portland Cement," for which the American Society for Testing Materials is sponsor, have been advanced to the full status of "American Standard" by the American Engineering Standards Committee. These specifications, which have been developed as a result of the experience of the industry through several years, were first approved by the A. E. S. C. as "Tentative American Standard" in 1919. They were reapproved in 1921 after agreements had been reached which eliminated slight differences between the Government and the commercial specifications, resulting in nationally recognized uniform specifications.

A Study of Wall Luminaires

By C. E. Weitz

THERE is a saying among decorators that "colors live by contrast." Though this is true of colors, it might be said that bad lighting practice is killed by contrast with the good. At least this was the effect of a display of seven panels exhibited first at the Milwaukee Fixture Market, and later at the National Electric Light Association Convention at Atlantic City.

These panel displays, shown in the accompanying picture, illustrate the use of wall brackets to produce the most pleasing effect by contrasting lighting from several types of accessories.

The first shows a burning tallow candle of our Colonial forefathers from which the present wall brackets are copied. Such a method of supporting the candle from the wall was very convenient and,

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since the candle flame was of low brightness, was very satisfactory.

When electricity displaced the candle, electric candle fixtures became common for decorative effect. Very often the lamps were too bright, especially when the wall was dark colored, causing the spot of light to be glaring and annoying. As shown in the third panel this brightness contrast is minimized with a light colored wall though even then the unshaded lamp appears fairly bright. The use of a parchment or diffusing glass shield with light wall coloring provides excellent diffusion of the light for a pleasing and decorative effect.

Colonial Practice | Bad Practice | Less Objectionable Practice | Excellent Practice | Harmful Practice | Good Practice | Good Practice

The fifth panel shows the use of wall brackets for general illumination throughout the room which, though quite common, is harmful practice. The use of large lamps in brackets is certain to be glaring and will prove very disagreeable if the walls are dark colored. The sixth panel shows how general illumination from wall brackets may be obtained by using a reflector large enough to conceal the lamp and of sufficient density thoroughly to diffuse the light.

Wall bracket accessories lend themselves to artistic design and, as shown in the last panel, if of good quality of glassware, pleasing illumination will result.

Fixture manufacturers' clubs have reproduced this display with a view to using it in furthering good lighting practice in the home, since the undesirable features of wall brackets are so strikingly contrasted with the decorative effect and utility possible to obtain when they are well selected and properly applied.

Paint in Dark Places

WHITE paint in factories and shops is growing in popularity. Henry Ford is credited with having introduced the "spitters' reproach," a white spot about one foot in diameter painted on the baseboard and floor in all corners in order to shame men into ceasing to use such places for cuspidors. The idea spread until it is common practice in many communities. White corners led to white baseboards and in turn to white wainscoting. Now it is reported that in many shops all machines are being painted with white paint. The white spot in the corner was designed to inculcate habits of cleanliness and avoid possible dissemination of disease germs. The white baseboard and white wainscoting were found to have a distinct lighting value. White painted machines are said to help greatly in lighting effect and the effect in creating habits of cleanliness among the employees is marvelous. One item, entirely unlooked for, has been a reduction in bills for lubricating oil, the average tender of a white painted machine soon learning that until he had to keep his machine clean he was an oil waster. The time spent in cleaning is not the heinous crime it was a generation ago. White ceilings, light tinted walls and white machines help to create a sense of satisfaction and will go far to create pride in craftsmanship.

The Radio As a Fire Risk

WITH 750,000 radio sets now in use in the United States and public interest growing rapidly, the National Board of Fire Underwriters, 76 William Street, New York City, is sending out warnings about the fire risk.

Outfits with outdoor atennæ bring in danger from lightning. This risk is not present with indoor atennæ. Specifications will be sent to all who are interested and send in requests to the above address.

A Standardization Survey

AT the request of Secretary Herbert Hoover, of the Department of Commerce, the American Engineering Standards Committee will undertake at once a canvass to determine what simplification in manufactured products is most needed and most desirable. This canvass will be conducted through the engineering and technical bodies having representatives on the Committee or co-operating in its work. The survey of simplification or standardization needs and possibilities will extend into almost every industry in America.

REVIEW OF RECENT ARCHITECTURAL MAGAZINES

BY EGERTON SWARTWOUT, F.A.I.A.

THE Architectural Review, London, June. The article on Brangwyn's decorations in the Blue Coat School at Horsham is continued, and is illustrated profusely with photographs of the original studies and of the finished panels; and it is extremely interesting to compare the changes in composition and character as the decorations develop. Undoubtedly much of the color relation is lost in the reproduction; and this loss of relation will doubtless be more evident in the two panels of St. Peter and the Gift of Tongues, which are herein reproduced, because the original sketch is printed in color in the *Review*. There is a freedom and a realism in these decorations of Mr. Brangwyn which is striking and amusing; the types are exaggerated almost to caricature; his Jews are without question Jews, but we must confess that St. Peter looks more like a Sinn Fein orator than the extremely dignified and bearded gentleman to whom the Italian School has accustomed us. Still, they are all real people, and as the series is in a school chapel, a certain lightness of touch is not inappropriate. Many a tedious sermon will be more easily endured because of these pictures.

From "The Architectural Review," London

Study for Panel—"St. Peter and the Gift of Tongues"
Frank Brangwyn, R. A.

There are some good photographs of the sculptures from the Temple of Zeus at Olympia, which Mr. Edward Warren considers superior even to those of the Parthenon, and there are several excellent reproductions of some drawings in red chalk by Piranesi, which have recently been found, and it appears they may be preliminary sketches for some of his etchings.

There are also a number of photographs of the Wallace Scott Tailoring Institute in Cathcart, near Glasgow, a sort of glorified "sweat shop" designed by John Burnet, Son and Dick. It has always been rather a custom in trade, if not in the professions, to submerge the identity of one's son, but it seems going a bit far to deprive the junior partner entirely of his patronymic, particularly in these days of young blood to the fore, and all that sort of thing. We do it differently here, as may be attested by a sign in lower Fifth Avenue which reads Cesare and Papa. Well,

From "The Architectural Review," London

Study for Panel—"St. Paul Entering Rome"
Frank Brangwyn, R. A.

The arrival of Paul at Rome, where the brethren "came to meet us as far as Appii forum, and The three taverns," is narrated in the last chapter (Chapter xxviii) of the Acts of the Apostles, from the fifteenth verse onwards

From "The Architectural Review," London

St. Peter and the Gift of Tongues

The artist takes his theme from the second chapter of the Acts of the Apostles, the words he quotes being from the fourteenth verse of that chapter. The realism of this panel is particularly bold and striking

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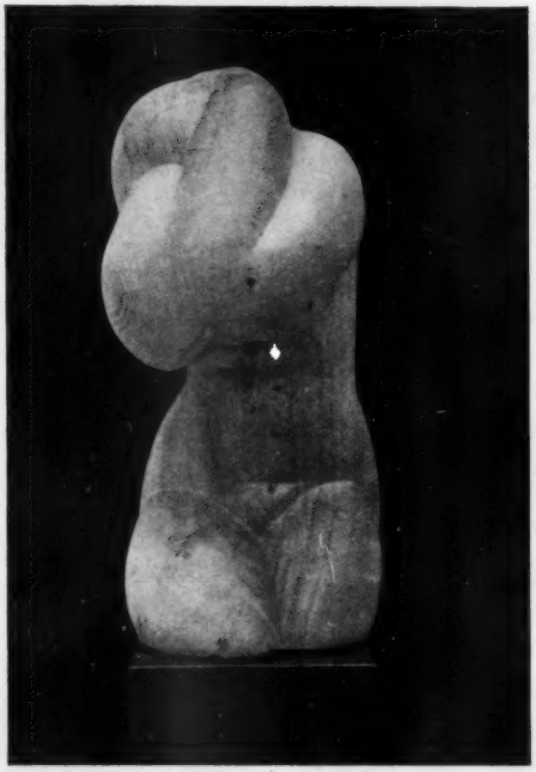
anyway, the Tailoring Institute is a well lighted and well built sort of a building and has a large dining hall and rooms for social and educational purposes; "and," says the article, "the influence of color on the nerves has been closely studied by the Welfare Authorities" who have selected eggshell and green as the color scheme; and "the two-color scheme is enhanced by all the workers being clothed in overalls of a green color to match the shade of the walls." This protective coloration must at times be a distinct boon to the employees, for if some one has left his or her machine for a quiet smoke or a bit of gossip, and if Mr. Wallace or Mr. Scott, undoubtedly clothed in eggshell, should suddenly enter, all that would be necessary to escape detection would be to "freeze" against the wall.

But still, green overalls and eggshells aside, isn't the idea a good one, and doesn't it suggest something that might be done here in New York?

The Architectural Record, May. Mr. Solon has collected a vast amount of material for his series of articles on Architectural Polychromy, the fifth number of which is now published. The frontispiece is in full color and beautifully produced, but we would like to know what authority has been found by Dr. Josef Durm for the vivid and spectacular coloring of our old friend the Erechtheion cap. The Corinthian cap in colored terra cotta exhumed at Olympia is novel, but not particularly good, either in design or in color. A colored Corinthian cap might be successful but the odds are decidedly against it. There is too much movement in the cap, too much variation; too many features. In point of fact, most Corinthian caps are too confused and messy even without color. Of course, we refer to large monumental orders in stone; smaller caps in wood or plaster have been successfully colored and it is conceivable that small terra cotta caps in color might be pleasing, but such decoration could never be monumental.

From "The Architects' Journal," London



"Torso" By Frank Dobson
From the Exhibition of the London Group at the Mansard Gallery

In the Portfolio of Current Architecture there are some interesting views of Henry Vaughn's Washington Cathedral, and a quaint little English cottage by E. S. Carpenter. Frank Chouteau Brown continues his article on Apartment Houses and shows some of the work of Andrew J. Thomas, his Jackson Heights apartment house being particularly good.

From *The Architects' Journal,* London, of May 24, we reprint something by Frank Dobson. "Small, compact, with a self-contained sweep of the arms closing about and hiding head and breasts, this Torso lives with a vehement life of indescribable charm." So says E. Holt, who writes an appreciation of it, and he also says that if he ever picks a winner he will buy it. If Mr. Holt is as good a judge of a horse as he is of sculpture he'll never buy it, which is some little consolation anyway. Also from *The Architects' Journal* of May 10, we reproduce a very original interior of St. Bride's Church, Glasgow, by H. O. Tarbolton, F.R.I.B.A. The church is very wide, the length being only one and a half times in width, and there are three rows of columns, irregularly spaced. It is an interesting solution of a difficult problem, is of genuine stone construction and yet there is little interference with the view of the congregation.

From *The Western Architect,* the May number, we take a view of a Railway Station in Helsingfors, Finland, by Eliel Saarinen; not that we care for it much ourselves, but it may give inspiration to the competitors in the next competition.

In *The Architectural Forum* for May, Charles W. Killam comments on the teaching of construction in the Ecole des Beaux-Arts as presented by Professor Edouard Arnaud in the *Journal of the Royal Institute of British Architects,* and also upon the paper by Thomas E. Collcutt, Past President R. I. B. A., published in the same number, in which Mr. Collcutt thinks that too much time is

wasted in teaching construction and that more attention should be given to the artistic side, and that students, unfit for the profession, should be weeded out before the course is finished. Mr. Killam thinks that in the practice of modern architecture there is room for the practical man as well as the designer, and that it would be difficult, if not impossible, to weed out the students, etc.

It's a grave question, that of architectural education, and few there are that will agree on it. As

From "The Architectural Forum"

General View
Federal Reserve Bank, Richmond, Va.
Sill, Buckler & Fenhagen, Architects

to Mr. Killam's statement that a knowledge of construction is essential to an architect, we heartily agree; but the question is, how are you going to teach it? The average student in an architectural school is young and generally inexperienced. More often than not he has had no previous college education, nor, what is most important, has he had any college life. He gets his college life in the school, and while he is generally more in earnest than the average college student, still he is not particularly keen about the drudgery of it, and he generally regards construction as drudgery. He is enthusiastic over the design; he will work his head off on some monthly competition, but he will go to sleep in lectures on construction. The writer was once decidedly of the impression that it

From "The Architects' Journal," London

View looking towards Northwest Corner
St. Bride's Church, Glasgow
H. O. Tarbolton, F.R.I.B.A., Architect

was a waste of time to let second year men loose on a big projet for a Palace for the Reception of Sovereigns of France, when a couple of years later these same men would be making, or tracing, details for Butler's Pantries, but he is not so sure now. They do like those big projets and they do them surprisingly well, and the general knowledge

From "The Western Architect"

Detail of Tower, Railway Station, Helsingfors, Finland
Eliel Saarinen, Architect

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of plan and design they acquire is of real value; and of particular value is the stimulus to the imagination. No one can stimulate his imagination in a Butler's Pantry. But it is also true they must have construction. How can a man design unless he knows what he is doing? To our way of thinking no one can call himself an architect if he can't design the building, make the working drawings, do, or at least superintend, the construction, write the specifications and superintend the work. It's a big order and no one man can probably do each part as well as a specialist, except as far as the design goes, for we presuppose that the architect is himself the designer. There are, it is true, some who call themselves architects, who practice only vicariously as it were; they get the commissions, perhaps, and hire competent men to do the work; such men are only middle men; they are not architects.

But to get back to the point, how are you going to teach construction? How would it be to let the designer do it? Not, of course, an inexperienced man, but some practicing architect who had had real practical experience both in design and the construction of the designs. If the proper man could be found, and there are many such, if they could only give a little time to it; if the proper man could be secured he could explain construction in a way that would command respect. The student would pay attention to what he said because he could explain that construction was design and that you had to design your construction. Of course his teaching would be general and perhaps only fundamental, but when once the student's interest was aroused he would naturally go deeper into the subject, under more expert instruction. It's worth trying.

NIGHTMARES*

NIGHTMARES, however dramatic and picturesque they may seem when related, are usually attributed to a prosaic cause—the failure of the digestive organs properly to assimilate food; and it is even stated that "The Mysteries of Udolpho," a weird and fantastic romance, was written under the stimulation of a diet of raw meat. We may possibly put down many imaginative results in life to indigestion inadvertently or intentionally produced. Now, even, the work of architects is occasionally a nightmare, in which case we may assume that it arises from the architect's or client's inability to assimilate some mental or artistic food. Like the author of "Erewhon," we are inclined to dogmatize, and to believe that what are considered as architectural crimes are but the manifestations of disease. In the same manner that perfect bodily digestion and perfect bodily health are practically synonymous, may not perfect design be the result of the architect's and client's digestion of architectural sustenance rather than of more complex and less easily understood processes? And if this be correct should not the architectural student consult a mental specialist to find out what food he can best assimilate, whether it should be Tudor, neo-Grec, or Baroque, and how often and in what quantity it should be taken? The parallel problem of the architect's client is more complicated, and may require longer and more careful treatment.

Now the medical student does not—like his comrade in the world of art—concentrate his attention on the contemplation of perfection, but, leaving that to the sculptor and painter, dwells on the problem of disease, and among his greatest joys is the investigation of the worst afflictions to which humanity is prone. May it not be argued that the architectural student should follow a similar course, and might he not gain more from a close study of architectural disease than he does from living in the hallowed atmosphere of the greatest monuments of history? If this be so, there is this obvious advantage: that such a study is always possible, for in an imperfect world there is more disease than health, and few buildings could obtain a clean bill of health at an architectural quarantine station. There is, to use a metaphor, many a Piccadilly Circus but only one Parthenon. The former, like the poor, is always with us; the other is far to seek. If the suggestion we make is a good one the best training for the architectural student may be found in the offices of the mediocre rather than the distinguished architect, and, as it is sometimes urged that there are more mediocre men than men of distinction, there will be no lack of opportunity, and those well versed in the forms of architectural disease will best be able to avoid its manifest dangers.

There is a possible danger that we may push our treatment too far, just as the rival medical experts portrayed by Bernard Shaw in the "Doctor's Dilemma" did, and in such a case we might fail to fill the role which has been occupied by the greatest men of our calling in the past.

If we are philanthropists—and almost every architect may be so described—we shall naturally think more of the public good than of our personal gratification. For this reason we strive to do good

* *An editorial in The Architect, London.*

work, and when our work does not reach a high standard it must be because we have allowed our sympathy and wish to serve our clients to obscure our higher aims.

Thus our work can be divided into two categories—good work, for which we alone are responsible, and indifferent, poor, or bad design, which is the outcome of our wish to please our clients, and which we have carried out because of our kindly sympathy. From this it clearly follows that our system of architectural education is conducted on wrong lines, and that what is really required is that education of the public to which we sometimes allude in our meetings. We do not suggest that the public should be forced to join the Institute, but simply that everyone in the land should receive some architectural training and should commit to memory some creed defining an architect's nature and functions. We can imagine the pleasure of living in a world in which a railway porter would be able to discuss the Five Orders with us in the interval of waiting for a train, when no errand boy would consent to pass through a badly proportioned doorway, and no servant would light a fire in an indifferently designed grate.

But we have mentioned the architect's nightmare as distinct from architectural nightmares. The architect's nightmares are many, but we may refer to a few of them. There is the client who does not know much about building but who has friends who do, to whom he goes for suggestions—and, unfortunately, gets them! Were these suggestions made to the architect direct he could in most cases dispose of them; but his client becomes an intermediary, carrying back his defence or explanation in a garbled form to a judge who is prejudiced against him. The client often begins to feel that if he knew more about the game he could himself catch the architect out. Strained relations, inconsistent with lofty ideals of charity, supervene—and we have a case of architect's nightmare.

We have the client who, like the ancient Athenians, is always looking out for some new thing. His architect can do nothing without discussing the advantage of something he has not thought of adopting and is usually unsuitable and inappropriate. Yet, because the client and not the architect has mentioned it first, the client feels he has got his architect at a disadvantage, and the poor fellow is much in the position of a man who runs for a train with insufficient time and failing wind. This is another well-known form of nightmare.

The economical client is often a trial and discipline to those whom he employs. His architect can do nothing without being told of something somewhere else which was cheaper, and a continual stream of such reminders gradually destroys the architect's peace of mind, leaving him in the position of a convicted fool—an experience akin to a nightmare.

The architect who builds for a client whose finances cannot well bear the strain naturally fares badly. He is placed in the position of a man who insists on his solicitor fighting a weak case. If by a miracle he wins, his judgment is justified; if not, it is human to attribute his failure to inefficient professional advice.

These and many other forms of nightmare might be described, but it suffices to say that one and all of them are obviously attributable to the client's failure to digest and understand the true nature of the sympathetic and altruistic architect he has employed.

Summing up the evidence we have briefly marshalled, we may say that architectural nightmares such as we see around us owe their origin not so much to the failure of architects, but to their super-abundant sympathy for their clients, while the architect's nightmares have their origin in the failure of the client rightly to understand and estimate the full merits of the profession.

The treatment in both cases is obviously not to administer remedies to the architect, but to the general public. We are refining pure gold at our numerous architectural schools, while what is needed is to leaven the mass and make the public recognize the talent which is theirs to employ.

But touching the minor question of the education of the architectural student, we have indicated the nature of another aspect from which it may be approached. We may arrive at a definition of virtue and vice by studying either, and is it not possible that in all fields of thought it is sometimes well to adjust our views by considering not only what is, but also what is not? We have often been asked to give chapter and verse for a condemnation of bad design, which we have found difficult precisely because we have never troubled to analyze the nature of what displeases us, while we find it easy to explain the merits of what we consider good. As the proper study of mankind is man and not good men alone, so our proper study is building and not good building alone, and it is only mental laziness which leads us to restrict the extent of our survey. We are but the instruments on which our clients play their harmonies or strike discords, and what is needed is that the performer should receive a training which will enable him to appreciate our manifold merits. We can impersonally urge the considerations which individuals of our craft are too modest to urge, though they must be conscious of the truth.

XUM

THE AMERICAN SPECIFICATION INSTITUTE

Member of The American Society for Testing Materials

19 South LaSalle Street, Chicago, Ill.

BOARD OF GOVERNORS

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THE Board of Governors represent memberships in the following national societies: American Institute of Architects; American Society of Civil Engineers; American Society of Mechanical Engineers; American Institute of Electrical Engineers; American Society for Testing Materials; American Concrete Institute; American Iron and Steel Electrical Engineers; which indicates the scope of activities of The American Specification Institute.

The American Architect and the Architectural Review has gratuitously set apart this section for use by The American Specification Institute. The Editors and Publishers assume no responsibility for any statements made, or opinions expressed.

The purpose, simply stated, is to afford an organization which, it is believed, will become a most important element in architectural practice and building operations, a medium through which it may, without expense to itself, reach a class of readers that are most intimately identified with the field of the activities of The American Specification Institute.

Publishers, The American Architect and The Architectural Review.

SPECIFICATIONS may be divided into four classes insofar as their contents are concerned. These classes are materials, methods, construction and equipment. Many specifications and, in fact, most specifications that are used in building and engineering structures, combine three of these four elements, that is to say, for building and engineering structures the specifications will embrace materials, methods and construction while for the equipment there will be these same elements with a sub-element of installation after shop construction.

Specifications are essential to the proper and orderly conduct of the business of all those concerned with buildings, engineering structures of all classes and for all manner of equipment of whatever kind which may be placed in or about such works. We have, then, the following classification of users of specifications: Engineers, architects, contractors, manufacturers, vendors, labor, owners, buyers, operators.

Each one of these classes is vitally interested in having at its disposal good specifications, the intent and purpose of which cannot be questioned. To each of them a good specification brings the assurance that there will be smooth operation and cordial relations for all concerned, whereas mediocre specifications mean everything but cordiality and happiness.

Owing to a present lack of means for collecting and distributing information concerning specifications there is a needless duplication of study, research and labor on the part of specification writers. This condition tends to make the work seem arduous, as it is quite often, if there has been no effort expended toward meeting the conditions present in the individual office. Those specification writers who have had sufficient vision to analyze the problem that they must meet and who have attempted to organize their work in some more or less methodical fashion, have been gratified to find the time so spent has been well spent.

Practically all other professions are so organized that the interchange of knowledge peculiar to their profession, such as the deliberations of committees which formulate proposed standards for basic operations and the results of researches undertaken by scientific laboratories, is effected in such a way as to result in the improvement of the quality of specifications produced and as a direct consequence, has resulted in an improvement in the professional and business standing of their authors.

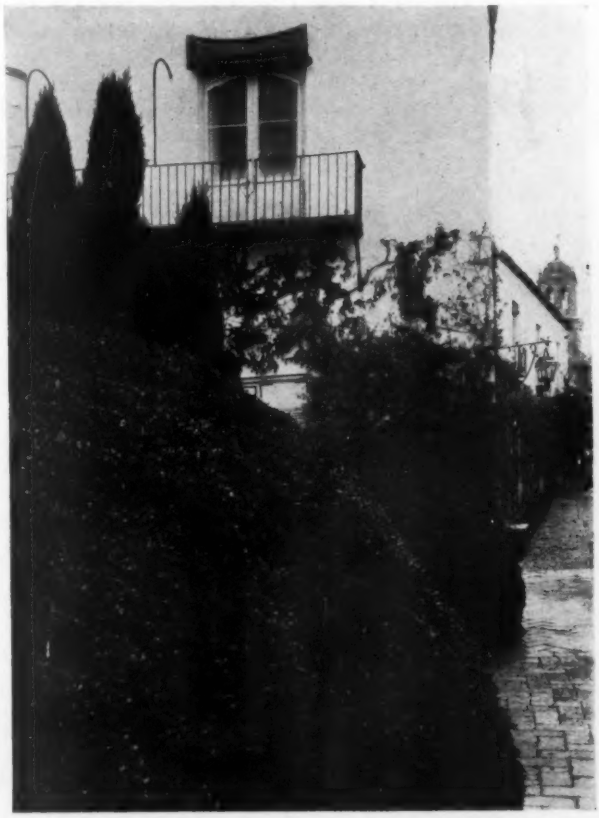
The American Specification Institute has been organized to improve all those conditions surrounding the writing of specifications and to bring to specification writers the benefits that are to be ob-

tained from organized efforts of men accustomed to study and write these essential documents.

The kinds of specifications that are to be studied and for the preparation of which informative data is to be compiled and distributed to members, include those for buildings, engineering structures and all works whatsoever in which materials of construction and labor are used; those for the installation and use of mechanical, electrical and sanitary apparatus and equipment; those for the fabrication and installation of all furnishings and furniture; those for all exterior and interior ornaments and ornamentation; those for road paving, planting, embellishing and improving of landscapes, estates and waterways; and those for all miscellaneous matters and things that are produced and offered for sale under specifications written by the engineer or architect.

These activities will be of interest to all those architects and engineers who are striving for perfection in their "instruments of service" and especially to such as have to do with the engineering or architectural features of structures, and their equipment for efficient and economical use.

The activities of the Institute are divided into two major classes, *viz*:, (a) study of materials and methods and (b) study of the elements and the composition of specifications. It is highly desirable that one who writes specifications should know something of the production of raw materials and the methods of finishing and preparing them for use. Such knowledge is informative and possession of it undoubtedly will tend toward a more intelligent selection and use of materials, thus producing more economical construction. The Institute does not propose to undertake the study of raw materials—such as those that enter into the manufacture of steel, for instance—with a view to developing a specification for the manufacture of any certain basic product, but it feels that a knowledge of the physical and chemical properties is, in many cases, quite desirable in order to prevent useless or wasteful attempts to utilize a material that is unsuited for the purpose intended.



Private Garden of the Marques de Vianna, Cordoba, Spain

(From the original photograph by Francis Howard)

XUM

SECOND JOINT CONFERENCE ON BETTER ADVERTISING TO ARCHITECTS

Held at Chicago, June 5 and 6, prior to fifty-fifth annual convention, American Institute of Architects

ON Monday and Tuesday, June 5 and 6, immediately preceding the convention of the American Institute of Architects, there was held the Second Joint Conference on Better Advertising to Architects. The representatives of some sixty manufacturers or producers of building products and a comparatively small number of architects were present.

President Kendall, in an address to the conference at the morning session, stated, that in his opinion the first Joint Conference held in Indianapolis, had accomplished much to bring about a better understanding between producers and architects, that would be helpful in solving mutual problems. He expressed the hope that the second Joint Conference would accomplish equally definite results which would be of further benefit to the profession and the building industry, and stated that the Institute was deeply interested in all such efforts. In closing, he extended a cordial invitation to all those present to attend the meetings of the Institute.

Mr. Sullivan W. Jones, Chairman of the Institute Committee on Structural Service, called the afternoon session to order and then asked Mr. Brown, architect, of Minneapolis, to take the chair.

Mr. Jones then presented the report and recommendations of the Executive Committee of the Conference. The essential feature of this report was the recommendation of the appointment of some sort of a Service Agency, such as the Structural Service Committee of the Institute, which might perform the following functions:

(a) Advise and counsel with manufacturers on the character of their advertising.

(b) Pass upon the character of advertising submitted; decide whether or not it should be filed for reference purposes; and if it contains useful data, classify it and assign a correct index number.

(c) Distribute collectively for manufacturers their advertising which has been approved as to character and classified.

(d) Study the feasibility and desirability of requiring proof of advertised claims and of the use of a symbol or hall mark of reliability.

(e) Collect data not now available, but necessary to a clear understanding of the factors to be considered if a satisfactory solution of the advertising problem is to be found.

It was quite apparent from the animated discussion, which lasted for over two hours, that those present believed that, while the plan submitted might be an ideal which it would be well to strive to attain, it presented so many practical difficulties and possible pitfalls that it would not meet the approval either of the Institute or the manufacturers.

In view of the many conflicting ideas which developed during the meeting, a resolution was adopted, directing the Executive Committee to reframe the program in the light of the discussion and to prepare a resolution for presentation to the Institute.

Mr. O. C. Harn, Advertising Manager of the National Lead Company and Chairman of the Executive Committee of the Conference, reported the results of the labors of the committee at the Tuesday morning session. The preamble and resolution follow:

Whereas, The Joint Conference on Better Advertising to Architects between the Board of Directors of the American Institute of Architects and the Building Materials Producers of the United States and reported in the *Journal* of the A. I. A. of April, 1922, and the Conference in Chicago, held June 5 and 6, 1922, have demonstrated the great desirability of a better understanding among Architects and Producers as to their common interest in the characteristics, presentation and appropriate utilization of products entering into construction; be it

RESOLVED, By the American Institute of Architects, in 55th Annual Convention assembled, that the Structural Service Committee of the American Institute of Architects be authorized to create a Producers Section of the Structural Service Committee as a sustaining body to collaborate with the Committee in the following duties:

(a) To advise and counsel with manufacturers, who may so desire, on the character of their advertising as to size, form, and content.

(b) To assist in furthering the use, by Architects and Producers, of the Standard Construction Classification adopted by the American Institute of Architects.

(c) To promote sincerity and reliability of statement in advertising.

Apparently the discussion of the day before had thoroughly acquainted the committee with the sentiment of the conference for there was unanimous approval both by the vote and individual speakers.

It was then voted to appoint a committee to present the matter to the Board of Directors of the Institute. This committee was accordingly appointed with the following members:

O. C. Harn, National Lead Company; S. W. Jones, A. I. A.; Lyman H. Clark, General Electric Company; D. K. Boyd, A. I. A.; W. Wishmeyer, architect; Dr. Mars, National Face Brick Mfrs. Assn.; F. B. Adam, Frank Adam Electric Company; Wharton Clay, National Assn. Metal Lath Mfrs.

Mr. Harn was also asked to hold himself ready to appear before the Institute to explain any questions which might arise and Mr. Lyman H. Clark of the General Electric Company was appointed an alternate.

Adjournment was taken to await the action of the Institute and the call of the Executive Committee.

This report was favorably received and approved at the morning session of the Institute on Friday, June 9.

THE CHICAGO TRIBUNE COMPETITION

One Hundred Thousand Dollars in Prizes to be Awarded in Competition Held Under Auspices of The American Institute of Architects

AS announced by President Kendall at the dinner which marked the close of the convention of the A. I. A. in Chicago, the Chicago *Tribune* has, to mark its seventy-fifth anniversary, offered prizes amounting to $100,000 in a competition for a design for a new building on its property on North Michigan Avenue.

The *Tribune,* in announcing this competition, editorially states:

The competition is open to the world, and it is hoped that the winning design will enable the *Tribune* to erect one of the most beautiful buildings known to men. We realize that prize competitions are not always productive of the best in any art. Competition frequently makes an artist self-conscious. Prize stories never reveal genius and seldom high talent. Nevertheless, we have hope that the prizes now offered will be stimulants and that the results will fully justify the methods.

The development of Michigan Avenue as a majestic thoroughfare is the possible gift of the future to the city, and the *Tribune* hopes to do its part. The monumental beauty of New York is amazing to appreciative Europeans, who see what American architecture can do with the flexibility of steel.

With this wonderfully malleable material Americans can achieve with ease what the builders with stone accomplished with pain and with expense of years. We can raise a temple, a cathedral, or a great monumental building with ease and grace, with infinite effects of lace as desired, with towering height and majestic proportions.

We believe that a great age is coming to Chicago, when its natural beauty of land and water will receive affectionate and intelligent care and development from its citizens and when the desire of men who build will be to contribute to its charm, its beauty, and its impressiveness.

To promote this end the *Tribune* will give $100,000 merely to encourage the drawing of a picture which shall later give a noble building to the city, an adornment to a great thoroughfare, and a model place of production for a newspaper which has prospered in the city it would like to serve.

The competition will be conducted under the rules of the American Institute of Architects, an association whose code of ethics is a synonym in the art world for loftiness, legitimacy, and scholarship.

The competition will open August 1, 1922. It will close November 1, 1922, thus covering three months.

The accepted design will be executed irrespective of cost.

The material in which their designs shall be executed is left to the discretion of competitors.

The jury of award will be:

Chairman, Alfred Granger, A. I. A., president-elect of the Illinois chapter of the American Institute of Architects.

Col. Robert R. McCormack, co-editor of the *Tribune.*

Joseph Medill Patterson, co-editor of the *Tribune.*

Edward S. Beck, managing editor of the *Tribune.*

Holmes Onderdonk, manager of *Tribune* real estate.

Associated with the jury will be an advisory committee comprising:

Two members of the Chicago City Council.

Two members of the Chicago Plan Commission.

Two members of the North Michigan Boulevard Improvement Association.

The prize money will be distributed on the basis of this scheme of honorariums:

A prize of $50,000 will be awarded for the design selected by the jury of award.

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A prize of $20,000 will be awarded for the design ranking next in the jury's selections.

A prize of $10,000 will be awarded for the design ranking third.

Ten prizes of $2,000 each will be awarded to ten architects to be especially invited to enter into this project.

The site of the proposed structure is among the most significant and inviting to be found in any of the great cities of the world.

That building will in its turn command long vistas and huge masses. It will be a colossus by day and a beacon at night.

Inquiries concerning this competition should be directed to the co-editors of the Chicago *Tribune*, Robert R. McCormack and Joseph M. Patterson.

Oldest Frame Building

WHAT is said to be the oldest frame building in the United States is the old Quaker meeting house at Easton, Md. Local histories place its date of erection in 1684, giving the ancient structure an age of 238 years, and it is said that William Penn attended service in the meeting house while he was trading with the Indians.

This old Quaker meeting house stands just where it was built and as it was built, without any change. An occasional replacing of the shingles on the roof and of the weather-boarding are all the repairs it has had since it was erected. Its frame inside and woodwork and some of the weather-boarding are the same as when built.

The only preservative used on the wood has been old-fashioned whitewash on the outside. Seven of the original plank seats and the woodwork inside have had no paint whatever. White oak, white pine, cypress and Southern pine from the Maryland forests were the woods used.

Bascule Bridge Introduced in China

IT is reported that the first bascule bridge in China is to be built over the Grand Canal in Tientsin in the near future. The bridge, which will have pagoda-like towers and ornaments typical of Chinese architecture, has been designed by a Chicago bascule bridge firm, and will have a total length of 280 ft. between abutments. It consists of a vertical-overhead-counter-weight double-leaf span of 130 ft. flanked on each side by fixed spans of 75 ft. The traffic on the Grand Canal at Tientsin (or Pei Ho as it is known at this point) is very dense and the bascule type of bridge was decided upon in order to facilitate the movement of river traffic at this point.—*Journal of the Association of Chinese and American Engineers*, Peking.

A Bill to Promote the Fine Arts

THE following notes constitute the rough draft of a bill which, when completed, will be presented to Congress by the Hon. George P. Darrow:

Seven per cent. of the total appropriation made for any public building constructed of stone or other hard material shall be spent for art, that is sculpture, mural painting, glass and mosaic or stained glass. The artists shall be chosen by the National Art Commission, and the artist selected in each case shall be a citizen of the State in which the building is to be erected. A bond of a reputable bonding company shall be required for the faithful and prompt performance of the work from each artist, amounting to 50 per cent. of the amount of the contract. For purposes of criticism, the architect of the building shall be the agent of the nation and shall select the kind of art required for the building. The subjects of the works of art in each case shall be allegorical of the events of historic importance of the locality in which the building is to be erected.

Goshen Tory Hanging Tree Cut Down

THE historic cottonwood tree at Goshen, near Middletown, N. Y., which was used as a gallows for the execution of Claudius Smith, a Tory bandit and murderer, 143 years ago, was cut down recently owing to its unsafe condition. The tree has been protected at great expense by the village for many years.

Municipal Improvements Convention

THE 1922 convention of the American Society for Municipal Improvements will be held in Cleveland, Ohio, October 1-6.

Memorial Bell Presented

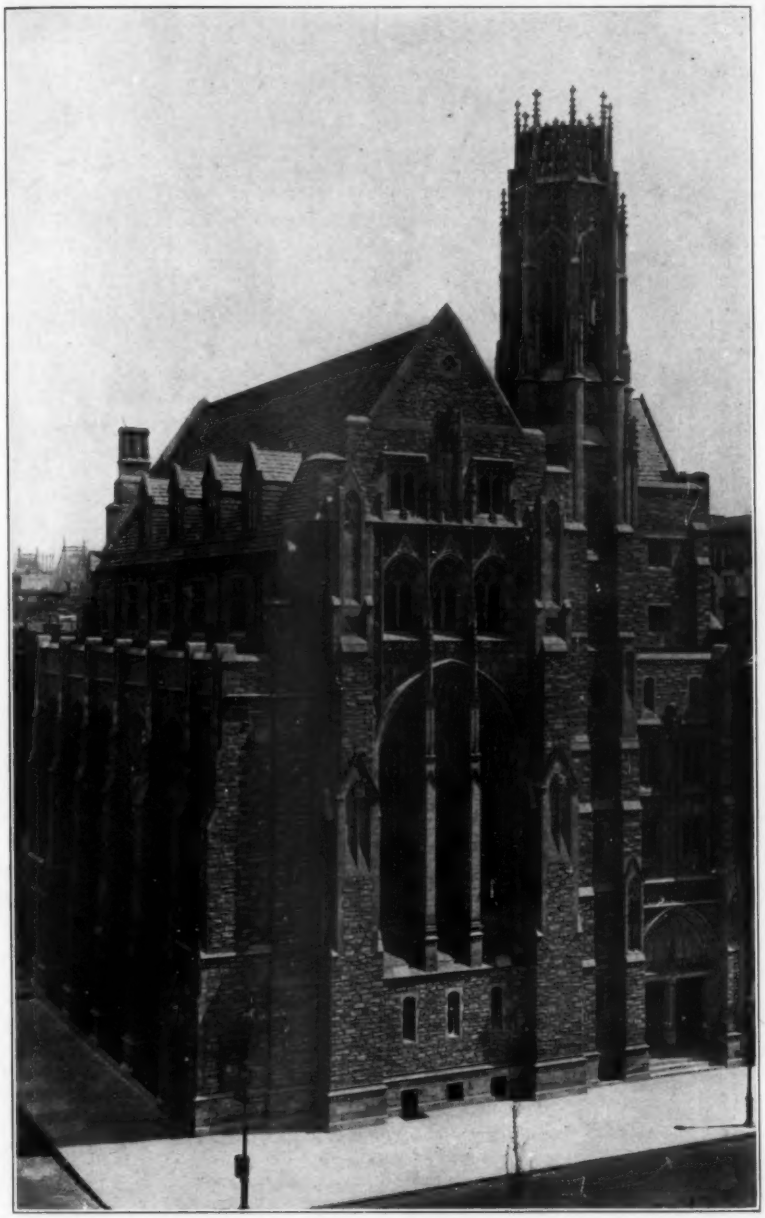
IMPRESSIVE ceremonies marked the recent dedication at Landricourt-Sous-Coucy, France, of the new church bell given to this war-torn village in honor of the American soldier-poet, Alan Seeger, by the Poetry Society of America through the American Committee for Devastated France.

The ceremonies concluded with the town's 200 inhabitants passing by the bell, each tapping it with the clapper.

The bell is one of thirty given to as many villages by the American committee to replace the bells taken by the Germans, all in memory of soldiers who fell near the villages so honored.

Church Built in 1860 Sells for $110

THE Methodist Church at White Sulphur Springs, near Liberty, N. Y., built in 1860 at a cost of $2,000 as a Federal arsenal in the Civil War, was recently sold at auction for $110. The steeple toppled over in a recent storm. The congregation will build a new church.



Park Avenue Baptist Church
Park Ave., New York

Henry C. Pelton, Allen & Collens
Associate Architects

THIS church—already known as "The Little Cathedral"—is one of the best examples of pure Gothic design recently erected. The exterior is an admirable combination of Massachusetts limestone, granite and Tudor Stone Roof. The roof completes the period effect and permanent character of the edifice.

The Tudor Stone for this roof is graduated in thickness from 3/8 to 1 inch. Seventy-five per cent is in the various shades of unfading Verde Unique—a dark living green, the greenest slate mined—rough in texture with most interesting edges. The balance is of the darker shades of brown and buff. The result is a rare combination of harmoniously blending colors.

The Tudor Stone was especially quarried to obtain interesting surface texture. Complete material for the entire roof surface was delivered, accompanied by detailed working drawings and specifications prepared by our Architects Service Department. The laying of the roof was under our personal supervision.

Roofing materials, selected and used with good judgment, do not merely assist architectural effects; they create them.

Tudor Stone Roofs

We are issuing a new "Architectural Leaflet," which gives detailed specifications and shows various examples where Tudor Stone has been used.
Write for your copy.

Rising and Nelson Slate Company

Quarries & Main Office, West Pawlet, Vermont
Office of Architects' Service Department 101 Park Avenue, New York
CHICAGO PHILADELPHIA BOSTON

XUM

BOOK NOTES

A Treatise On Columns*

THE scientific study of column formulas commenced in 1729 and in 1757 Euler in his *"Essai sur la force des colonnes"* proved what should be the limit of the axial load on a column in order to produce deflection. From that time to about one hundred years ago a vast literature appeared in the attempt to reconcile his theory with the result of experiments. The apparent irreconciliability was finally found to be due largely to his assumption of a perfectly straight line loaded axially, something impossible to attain in experiments. Young was the first to give an analysis which took into account the effects of eccentric loading and also of initial curvature in columns. His lack of the power of lucid expression was unfortunate for the flood of mathematical disputation continued until later investigators arose who were able clearly to interpret him.

Fifteen years after the publication of the work of Young the Tredgold formula appeared (1822) and about 1840 appeared the famous Gordon formula, which some time between 1858 and 1860 was modified by Rankine. It is now believed that the Eulerian theory is correct for a long slender column not affected by imperfections, which, broadly speaking produce three distinct effects: Eccentricity of loading; Initial curvature; Reduction in the strength of material. The Rankine-Gordon formula is rational in that it recognizes that the total stress is the sum of that due to direct compression and that due to bending. It loses its rational character and becomes empirical when constants are introduced in place of the maximum co-ordinate to the load line.

It is now generally admitted that the chief sources of weakness in a column are inevitable imperfections in the material and in the process of fabrication. The real divergence between theory and practice is due to wrong estimation of the effect of these imperfections. This explains the present popularity of "straight-line" formulas and the extensive testing of full size compression members favored by present day engineers. All the foregoing is told in detail in the new work by Dr. Salmon, which contains a full discussion of column design and construction.

The author in the Preface states that he worked nine years (1906-1915) on the preparation of a thesis for the degree of D. Sc. (Engineering), the thesis being presented to the University of London and the degree obtained in 1916. In 1921 the thesis was re-arranged by omitting all the Historical section and substituting therefor a Bibliography of 16 pages in fine type of literature on column design and construction, which begins with a reference to a treatise printed in 1729 and ends with articles printed in 1920. The literature of the subject was well searched and the number of references to American articles is gratifying. Part II, Analytical, and Part III, Synthetical, have been reproduced practically as they stood in the original, except that notes have been added, where necessary, to bring the work up-to-date. In Part III, an attempt has been made to collate what has been done on the subject, the author summing up in readable form the teachings of both theory and experiment. This part terminates with a practical application and examples.

The work is mathematical as might be expected from the fact that it is a thesis presented for a degree. The appearance of the pages however is far more terrifying than the work contained in them. The calculus is used whenever it is believed to be of value but it is hardly more than the elements of that branch of mathematics and men who have retained any recollection of it will find little trouble in following the arguments. Preceding the Bibliography the author devotes six pages to definitions and mathematical symbols, which are strictly adhered to throughout. It is a book for teachers of structural engineering, for advanced students and for that numerous class of engineers who like to go to the bottom of things and are fond of the philosophical side of their work. The historical and descriptive pages are written in an interesting style.

* *Columns. A Treatise on the Strength and Design of Compression Members. By E. H. Salmon, D. Sc. (Eng.); Assoc. M. Inst. C. E., New York; Oxford University Press. 279 pp. Ill. 5½x9 in. Cloth.* $12.00.

The Design of Structures*

ABOUT seventy-five years ago a Yankee schoolmaster became interested in the building of a highway bridge near his home. In conversing with the carpenter-contractor he was surprised to learn that bridges were designed by "cut and try" methods and close copying of existing safe structures. Arch action was fairly well understood and the triangle was known to make a perfect frame, but that was about all. The schoolmaster made pin-jointed models and spent his summer vacation in experimental work, the result being the birth of rational structural design. Numbers of mathematicians, checked by laboratory investigators, continued the work so that today the principles are fairly well known; the teaching of embryo structural designers having become a practically standardized process of stuffing memory cells with facts and figures.

Such a condition is not good for continuing

* *Essentials in the Theory of Framed Structures. By Charles A. Ellis. 330 pp. Ill. 6 x 9 in. Cloth. New York: McGraw-Hill Book Co.* $3.50.

The MELBOURNE HOTEL, St. Louis: Preston J. Bradshaw, Architect; 36th Street Investment Co., Builder and Owner; N. O. Nelson Mfg. Co., Jobber; J. A. McBride, Plumber

KOHLER

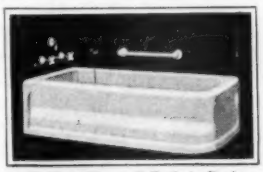
And The MELBOURNE HOTEL

The community of St. Louis enjoys the fine civic pride of a thoroughly modern hostelry in the new *Melbourne.*

Every appointment of service is the very last word in comfort and convenience.

For instance, Kohler "Viceroy" Built-in Baths give the final touch of comfort and beauty to two hundred and eight bathrooms of the Melbourne.

Just another example of how hotels and clubs, apartment houses and institutions, large and small, throughout the country, are meeting the public's discriminating taste in the selection of Kohler Enameled Plumbing Ware, which is pre-eminent for durability and utility as well as for glistening, snow-white beauty.



Kohler "Viceroy" Built-in Bath
Corner Pattern

KOHLER OF KOHLER

Kohler Co., *Founded 1873,* Kohler, Wisconsin
Shipping Point, Sheboygan, Wisconsin

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MEMBER OF THE NATIONAL TRADE EXTENSION BUREAU OF THE PLUMBING & HEATING INDUSTRY PERMIT NO. 05 REGISTERED

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development and a few teachers are advocating a return to philosophical methods of teaching. These involve progress from the particular to the general, a process paralleling the development of acquired intelligence by contact with problems of life. In the University of Illinois Mr. Charles A. Ellis gave a course in structural design in which the use of formulas was reduced to a minimum. The men in his classes were taught in a manner that developed mental power because no opportunity was given to dodge the fundamental idea or the physical conception of the problem by resorting to a formula. Mr. Ellis today is not a teacher but is vice-president of a bridge company and has written his lessons, accompanied by problems, into a textbook. It deals with subjects already well covered in many books from which it differs only in the method of presentation. For men who wish to be more than "hand-book designers" or blind followers of building code specifications it is admirable and has the additional merit of being well written. Practical men have philosophical minds and such men will enjoy studying this book for the purpose of refreshing their understanding of basic principles. It aims to teach students to think; that is, to exercise their imaginations by developing the power to reason and thus to relieve conscious dependence upon mere memory. It requires on the part of the student a working knowledge of algebra, geometry and trigonometry. The calculus is used sparingly and in the more important chapters not at all.

Guild Scheme for France

IN response to requests by representatives of the homeless persons of the war devastated districts of France, the Executive Committee of the Union of Technicians in Industry, Commerce and Agriculture of France has decided to organize a building guild to carry out construction work for public authorities, municipalities and societies of war victims, says a report issued by the Amsterdam Bureau of the International Federation of Trade Unions. The guild is not to make any profit on its work, merely paying the regular salaries and wages to its technicians and workers. The French building trade unions are going to co-operate in the work.

Ban Forest Advertisements

PREVENTING the national forests in California from being defaced with advertising signs, an order recently issued by the District Forester at San Francisco states that advertising signs in the seventeen national forests of California must come down. Advertisements printed on rocks and trees are also to be effaced.

According to the regulations of the Forest Service of the United States Department of Agriculture, such advertising is prohibited from all national forests without special permits, which are seldom issued.

To Start Gorgas' Memorial

THE cornerstone for the memorial to be erected in Panama in honor of Major General William C. Gorgas, former Surgeon General of the United States Army, will be laid July 2, 1923, it was recently officially announced. The ceremony will be held in connection with the visit of the American College of Surgeons to the Isthmus of Panama on a Latin-American tour.

Germans Are Building Upward

HAMBURG is reported to be all agog over its first skyscraper building, a sixteen-story structure to be erected in the old business district and topping the highest building in Germany by some five stories. "Himmelkratzerbau" is the way Germans speak of their skyscrapers.

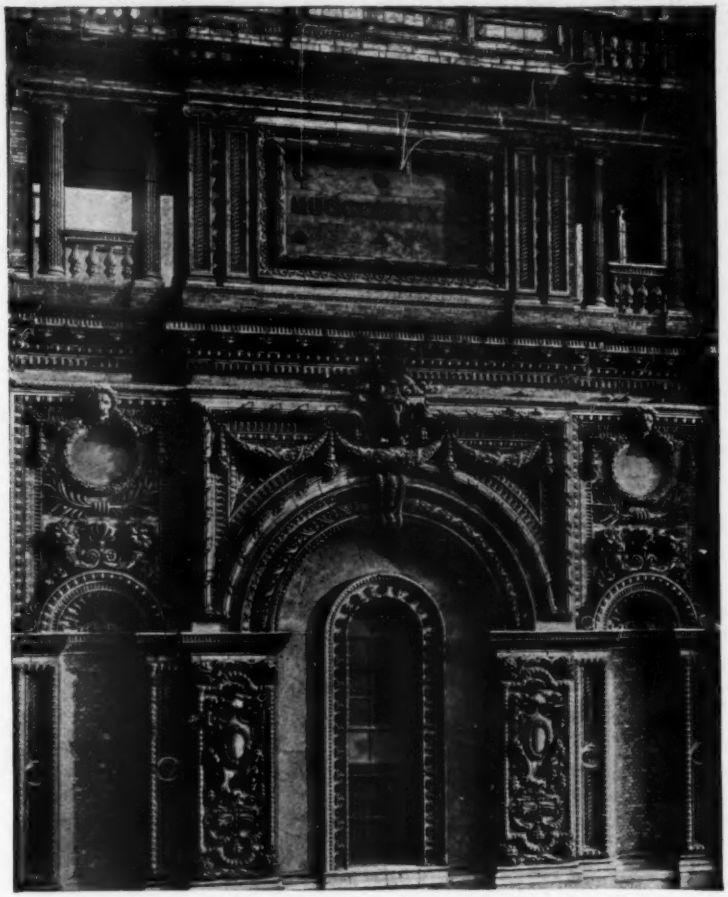
United States to Present Brazil With Statue

LARGE and small subscriptions are invited for the $100,000 fund that is to be raised in the United States for the establishment of a statue of a Goddess of Friendship in the Harbor of Rio de Janeiro as a gift from the American people to Brazil. Of the total cost, $15,000 has been pledged by the American Chamber of Commerce of Brazil, which conceived the idea.

Charles Keck, former assistant of Augustus Saint-Gaudens, was given the commission for the statue by the American Chamber of Commerce of Brazil. The towering female figure, of the same height as the Goddesss of Liberty, represents the good feeling betwen the two countries. She holds in her right hand a sprig of laurel, in her left the flags of Brazil and the United States intertwined with laurel and palm, symbolizing prosperity and peace.

The gift is to be presented to Brazil in the course of an international exposition commemorating the centennial of Brazilian independence, to be held from September 7 to December 31.

Secretary of State Hughes has approved the subscription campaign.



Detail of Terra Cotta construction and ornament, Madison Square Garden, New York City; McKim, Mead and White, Architects.

Unretouched photo showing condition of Terra Cotta, March 1st, 1922.

A 33-YEAR TEST

MADISON SQUARE GARDEN affords convincing evidence of the *durability* of Terra Cotta. After thirty-three years' exposure to climatic action its Terra Cotta is in perfect condition throughout.

This example, one of many in all parts of the country, attests the absolute permanence of Terra Cotta when its use is intelligently conceived and its installation properly supervised. Northern Italy and France carry the demonstration further in many instances of over 500 years' standing.

Correct detailing of terra cotta and proper related construction will insure this result.

Send for our reference work, "Terra Cotta Standard Construction," a volume of seventy plates of typical details; free on request to architects, engineers, draftsmen and students of recognized professional schools. Address: **National Terra Cotta Society,** 19 West 44th Street, New York City.

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Permanent Beautiful Profitable

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PERSONALS

R. E. Scammel, architect, formerly at 412 New England Building, is now located at 614 New England Building, Topeka, Kansas.

F. J. Schwarz, architect, formerly in the Colt Building, Patterson, N. J., is now located in the Woolworth Building, New York City.

J. M. Ryder, architect, has moved his office from 16 Sean Street to the Parker Building, Schenectady, N. Y.

Edward J. Berg, architect, wishes to announce the opening of an office at 236 Genesee Street, Utica, N. Y.

Wm. Friedberg, architect, recently opened new offices at 21 Market Street, Newark, N. J., where he will be pleased to receive manufacturers' catalogs and samples.

Announcement is made that Frederick L. Barrett, formerly architect for the Sanitary District of Chicago, has opened offices at 4411 Kedzie Avenue, Chicago, Ill.

Brown, Preston & Derrick, architects and engineers, formerly at 406 Empire Building, have moved their offices to 120 Madison Avenue, Detroit, Mich.

The firm of Hughes, Horton & O'Neill, architects, 15 Central Avenue, Newark, N. J., is now known as Hughes & Horton, Mr. O'Neill no longer being associated with that firm.

John Adams, architect, Montevideo, Uruguay, has taken into partnership M. C. Broad, A. R. I. B. A. and C. S. Higgins, A. M. I. C. E., the firm to be known as Adams, Broad & Company.

M. R. Marsh, 609 Trust Building, Charlotte, N. C., has recently been granted a certificate to practice architecture in North Carolina. Manufacturers' catalogs and samples are desired.

Harry F. Cunningham, late Major, Machine Guns, U. S. Army, and at one time Director, School of Decorative Art, A. E. F. University, France, announces that he has opened an office at 1219 Connecticut Avenue, Washington, D. C., where he is prepared to undertake the study and execution of any architectural, decorating or town planning problem. Manufacturers are requested to send catalogs and samples.

Albert J. Petelinz, architect, wishes to announce the removal of his office to the Patton Building, located at 428 Grand Avenue, Milwaukee, Wis., where he will continue the general practice of architecture.

The Department of Architecture of The American Baptist Home Mission Society, 23 East Twenty-sixth Street, New York City, requests catalogs and data for an architectural library, particularly in connection with church and school work.

It is announced that Wm. B. Helmkamp, architect, formerly of the firm of Boemisch, Krans & Helmkamp, Ohio Building, Akron, Ohio, has opened his own offices at 410 Peoples Savings and Trust Building, that city.

Ralph C. Harris and Byron H. Jillson have formed a partnership for the practice of architecture, the name of the new firm being Ralph C. Harris and Byron H. Jillson, architects, State-Lake Building, 190 North State Street, Chicago, Ill.

Joseph L. Roberts, one of the oldest practicing architects in California, has established an office at 702 South Spring Street, Los Angeles. Mr. Roberts was formerly located in San Francisco and began the practice of architecture in that city in 1877.

R. L. Pringle, architect, announces that on June 1 last, Francis P. Smith, formerly Professor of Architecture at Georgia School of Technology, became associated with him for the practice of architecture under the firm name of Pringle & Smith, 1417-21 Atlanta Trust Company Building, Atlanta, Ga.

Word is received of the recent death of John Theodore Comes, architect, of Pittsburgh, Pa., the creator and chief organizer of the Pittsburgh Architectural Club. From the start of his professional career, Mr. Comes specialized in the planning and construction of churches and ecclesiastical buildings.

Elwin P. Norberg, architect, formerly at 6034 Hollywood Boulevard, has moved his offices to 704 Union Bank Building, Eighth and Hill Streets, Los Angeles, Cal. In the new location, Mr. Norberg will have as his associate Charles E. Norberg, his father, who will move his office from Pasadena.

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